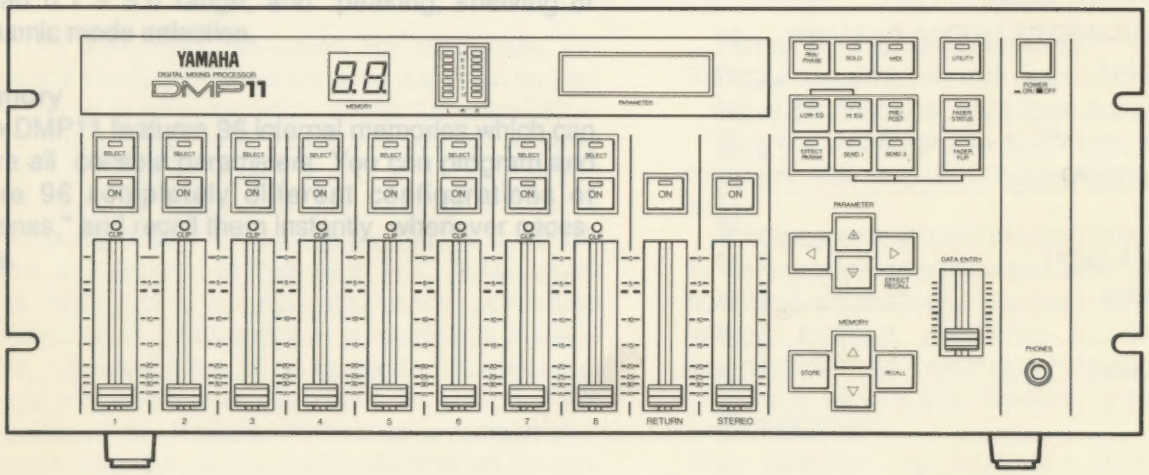
YAMAHA

Digital Mixing Processor

DMP11

Operation Manual



Congratulations on your acquisition of a Yamaha DMP11 Digital Mixing Processor!

The Yamaha DMP11 carries on in the tradition of the superlative Yamaha DMP7 Digital Audio Mixing Processor, providing extraordinary "music processing" capability. It effectively integrates an 8 x 2 digital line-level mixer with top-quality Yamaha digital effects. Each and every parameter — from fader positions to effects and EQ settings — is fully programmable. Up to 96 complete system configurations can be stored in internal memory and recalled at the touch of a button for instant "scene" changes. What's more, the DMP11 is MIDI compatible. MIDI program change commands from external equipment can be used to automatically switch scenes, or a MIDI sequence recorder can be used to store mixdown and effects change operations in real time. If 8 inputs aren't enough for your requirements, the DMP11 permits digital cascading of 2 or more units. The DMP11 is both a revolutionary production tool and "musical instrument" in its own right.

In order to take full advantage of the tremendous potential offered by the DMP11, we urge you to read this operation manual thoroughly, and keep the "OPERATIONS SUMMARY" handy while you are familiarizing yourself with the DMP11.

DMP11 Features

- **All-digital Signal Processing**
  Analog signals are A/D-converted on entry into the console, and are handled and processed in digital form right up to the D/A stage at the stereo outputs. In addition to providing extraordinary signal processing versatility, this ensures that maximum signal quality is maintained from input to output.

- **2 Digital Effects Systems**
  Each DMP11 channel features 2 effect loops that feed a high- performance internal digital multi-effect processor. Effects send 1 provides access to 20 different effects including reverb, gate reverb, delay, echo, flange, phasing, tremolo, symphonic, pitch change, etc. Individual parameters controlling each effect may also be programmed. Effect send 2 feeds a 5-effect internal system. In addition, effect send 1 or effect send 2 can be assigned to a rear-panel EFFECT SEND jack for external signal processing.

- **Reliable Multi-function Faders**
  Like all other DMP11 parameters, fader settings can be memorized and recalled as needed. A single set of faders functions for channel level control and effect send level control to both of the DMP11's effect systems. Memorized fader settings can be graphically displayed on the LCD display panel.

- **Versatile Digital EQ**
  Each DMP11 channel offers a versatile 2-band digital equalizer. Each band permits frequency control, plus or minus 15 dB gain control, Q adjustment over a broad 0.1 – 5.0 range, and peaking, shelving or dynamic mode selection.

- **Memory**
  The DMP11 features 96 internal memories which can store all console parameters. You can program and store 96 completely different configurations or "scenes," and recall them instantly whenever necessary.

- **MIDI Control Capability**
  Different memories (scenes) can be selected simply by sending the appropriate MIDI program change number to the DMP11 over a standard MIDI cable. It can even be connected directly to a MIDI sequence recorder for real-time storage of mixing and effect operations. For really complicated operations involving many simultaneous fades, EQ changes, etc., each operation can be individually overdubbed on the sequence recorder. Then you simply play back the sequence as you would with any other MIDI compatible musical instrument, and the entire mixing/signal processing process is recreated in fine detail.

- Optional MLA7 8-channel Microphone Amplifier.
- SOLO mode for individual channel monitoring.
- Full stereo panning control.
- Stereo master peak meters.
- LCD mode and parameter display.
- 7-segment LED memory number display.
- Memory protection.

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PRECAUTIONS

1. **AVOID EXCESSIVE HEAT, HUMIDITY, DUST AND VIBRATION**
   Keep the unit away from locations where it is likely to be exposed to high temperatures or humidity — such as near radiators, stoves, etc. Also avoid locations which are subject to excessive dust accumulation or vibration which could cause mechanical damage.

2. **AVOID PHYSICAL SHOCKS**
   Strong physical shocks to the unit can cause damage. Handle it with care.

3. **DO NOT OPEN THE CASE OR ATTEMPT REPAIRS OR MODIFICATIONS YOURSELF**
   This product contains no user-serviceable parts. Refer all maintenance to qualified Yamaha service personnel. Opening the case and/or tampering with the internal circuitry will void the warranty.

4. **MAKE SURE POWER IS OFF BEFORE MAKING OR REMOVING CONNECTIONS**
   Always turn the power OFF prior to connecting or disconnecting cables. This is important to prevent damage to the unit itself as well as other connected equipment.

5. **HANDLE CABLES CAREFULLY**
   Always plug and unplug cables — including the AC cord— by gripping the connector, not the cord.

6. **CLEAN WITH A SOFT DRY CLOTH**
   Never use solvents such as benzine or thinner to clean the unit. Wipe clean with a soft, dry cloth.

7. **ALWAYS USE THE CORRECT POWER SUPPLY**
   Make sure that the power supply voltage specified on the rear panel matches your local AC mains supply.

   U.S. & Canadian models: 120V AC (105-130V), 60 Hz
   General model: 110-120/220-240V AC, 50/60 HZ

8. **ELECTRICAL INTERFERENCE**
   Since the DMP11 contains digital circuitry, it may cause interference and noise if placed too close to TV sets, radios or similar equipment. If such a problem does occur, move the DMP11 further away from the affected equipment.

9. **BACKUP BATTERY**
   THE DMP11's internal memory is maintained by a long-life (approx. 5 years) lithium battery. Have the battery replaced by a qualified Yamaha service center when its voltage drops below 2.5 volts. See "BATTERY CHECK" on page 26 for details.

FCC CERTIFICATION (USA)

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However,there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

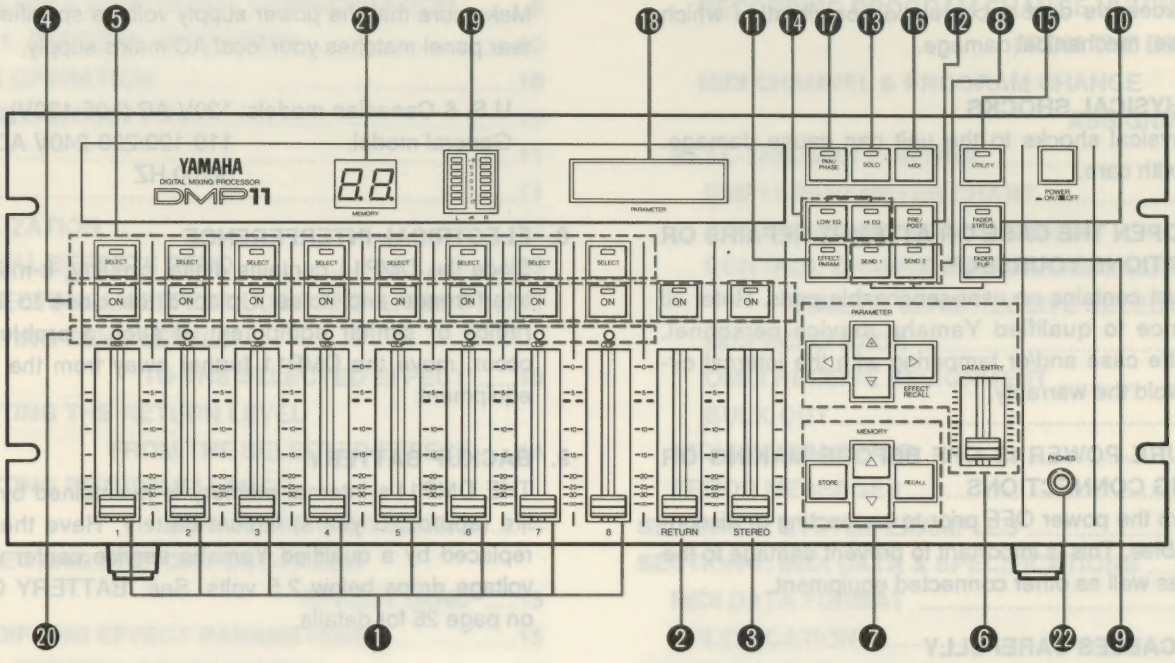
Reorient the receiving antenna.
Relocate the computer with respect to the receiver.
Move the computer away from the receiver.
Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to identify and Resolve Radio-TV interference Problems".
This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

CONTROL PANEL AND CONNECTIONS

CONTROL PANEL



❶ Channel/Effect Send Faders
Depending on the selected mode, these 8 faders function as level controls for the DMP11's 8 input channels, or as effect send level controls for the corresponding channels.

❷ Effect Return Fader
Adjusts effect return level for the DMP11's two internal effect systems. The currently active effect loop is determined by the Effect Send Select buttons.
[Detailed instructions on page 14]

❸ Stereo Master Fader
This is the main stereo program fader, controlling the overall level of the master stereo program buss.

❹ Channel ON buttons
These buttons function in the same way as channel ON/OFF buttons on a conventional mixer, turning the corresponding channel ON or OFF. When the ON button LED is lit, that channel is ON. When the ON button LED is out, that channel is OFF and its signal will not be applied to the master stereo or effects busses. The ON buttons on the effects return and stereo program strips function in a similar way. The STEREO strip ON button turns the mixer's stereo output ON or OFF, while the RETURN strip ON button is used to individually turn the DMP11's 2 effect loops ON or OFF.
[Detailed instructions on page 10]

❺ Channel Select Buttons
The SELECT buttons at the top of each input channel strip allow selection of a single channel for programming via the programming buttons to the right of the control panel. A channel must be selected using its SELECT button in order to program PAN, PHASE, EQ, and other parameters.

❻ Parameter Buttons & Data Entry Slider
The group of 4 PARAMETER buttons and the DATA ENTRY slider are the DMP11's main programming tools. These are used to select parameters for programming as well as to set the values of the selected parameters.

❼ Memory Buttons
The group of 4 MEMORY buttons allows selection of the DMP11's 96 internal memory locations for storage and retrieval of data.
[Detailed instructions on page 22]

⑧ Effect Send Select Buttons
These buttons are used to select any one of the DMP11's two internal effect systems.
[Detailed instructions on page 13]

⑨ Fader Flip Button
The FADER FLIP button sets the 8 channel faders for channel level control or effect send level control operation. When the FADER FLIP button LED is off, the faders function as channel level controls. When the FADER FLIP button LED is ON, the faders function as effect send levels controls for their respective channels.
[Detailed instructions on page 13]

⑩ Fader Status Button
This button switches the LCD display panel to show memorized fader settings in graphic form. The FADER STATUS button also accesses a function which allows setting the faders to positions which match the memorized data.
[Detailed instructions on page 13]

⑪ Effect Parameter Buttons
Pressing the EFFECT PARAM button makes it possible to select and edit parameters within the currently selected effect (selection and editing is performed using the PARAMETER buttons ⑥). Once the desired effect has been selected, the EFFECT PARAM button can be pressed, providing access to parameters within the selected effect which can then be modified as required.
[Detailed instructions on page 15]

⑫ Effect Send Pre/Post Selector
This button permits selection of pre-fader or post-fader effects send status for each of the DMP11's 8 channels.
[Detailed instructions on page 15]

⑬ Solo Button
Pressing this button activates the SOLO monitoring system, permitting monitoring of specific input channel signals, effects send signal, or a group of input channel or effect send signals.
[Detailed instructions on page 21]

⑭ EQ Select Button
These Buttons access the low and hight-band equalizer parameters for the currently selected channel. Once selected, the EQ parameters are caled and modified using the PARAMETER buttons and DATA ENTRY silder.
[Detailed instructions on page 12]

⑮ Utility Button
The utility Button accesses a list of utility functions including memory protection, title editing for the DMP11 memory locations, channel-to-channel data copying, battery check and others. Each press on the UTILITY button advances to the next function on the list until the utility mode is exited after the last function has been called.

⑯ MIDI Button
All the DMP11's MIDI functions are contained in a list which is accessed by this button : program change number assignment, control number assignment, bulk dump, echo back and others.

⑰ PAN / PHASE Button
This Button accesses both the panning and phase-reversal functions for the currently selected input channel. Panning is programmed in 17 discrete steps from full left to right, while phase can be set to either normal or reverse allowing phase-matching between input sources.
[Detailed instructions on page 11]

⑱ Backlit LCD Data Display
This 16-character x 2-line backlit LCD (Liquid Crystal Display) shows all parameters while programming and other information where necessary.

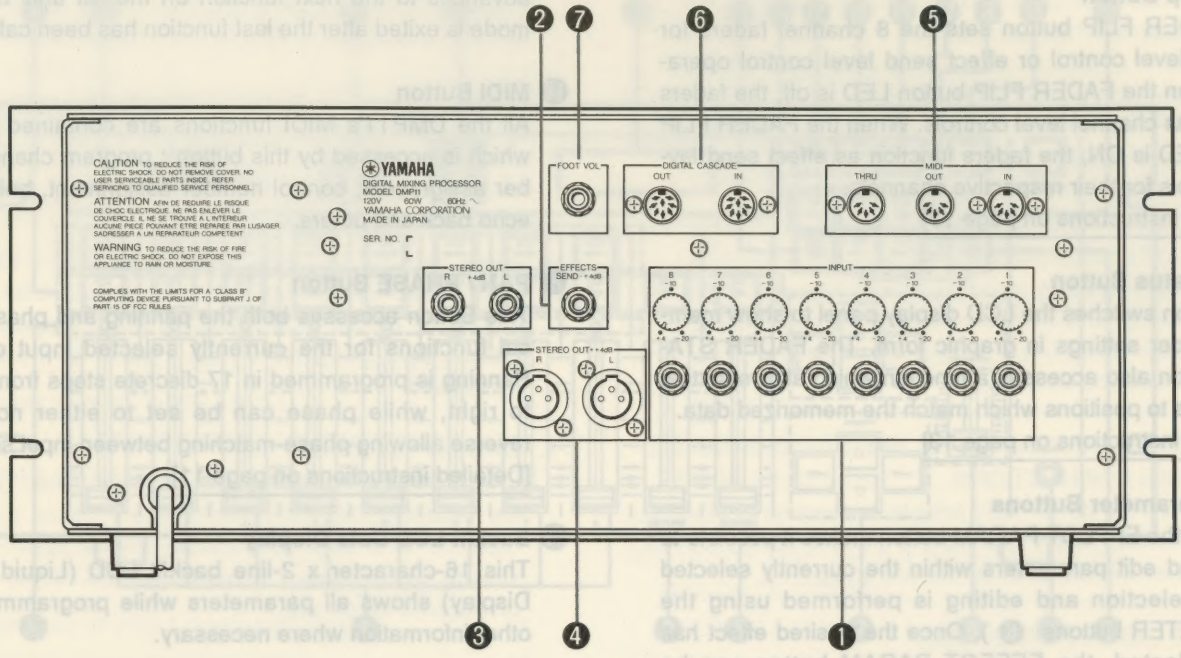
⑲ Stereo Program Peak Meter
This left and right-channel meter pair shows levels on the master stereo program buss.

⑳ Channel Clip Indicators
The LED indicators located above the 8 channel faders light when the level of the input signal to the corresponding channel reaches 3 dB below clipping. This makes it simple to avoid overloading the input circuitry.

㉑ Memory Number LED Display
Shows the number of the currently selected memory. A continuously lit number indicates the current active memory, while a flashing number indicates that a memory number has been selected but not yet recalled (or the memory cannot be recalled because it contains no data). The Memory Number LED display also indicates when any changes have been made to parameters in the current memory location by displaying a dot in the lower right-hand corner.

㉒ Phones Jack
The stereo headphones jack delivers the signal appearing on the DMP11's stereo program buss to any standard pair of stereo headphones.

CONNECTOR PANEL



U. S. & Canadian models

❶ Input Jacks & Trim Controls
These are standard monaural 1/4" phone jacks which accept line-level input to the DMP11's eight input channels. Each INPUT jack has an input level trimmer control which adjusts the nominal input level between approximately -20 dB and +4 dB. The center detent position of the input level trimmers provides a nominal input level of -10 dB. Input impedance is 10 k-ohms.

** Microphone input is also possible using the optional Yamaha MLA7 8-channel microphone amplifier.*

❷ External Effects Send Jack
Delivers a D/A-converted analog signal from the effect SEND 1 or SEND 2 system for external signal processing. Assigning SEND 1 or SEND 2 to the EFFECT SEND jack is described in "CASCADE MODE CONTROL" on page 29. Nominal output level is +4 dB, and optimum load impedance is 10 k-ohms or greater.

❸ Unbalanced Stereo Output Jacks
Main stereo program outputs from the DMP11. These outputs are unbalanced 1/4" phone jacks, delivering the output signal at a nominal +4 dB. Optimum load impedance is 10 k-ohms or greater.

❹ Balanced Stereo Output Jacks
Main stereo program outputs from the DMP11. These outputs are balanced XLR type connectors, delivering the output signal at a nominal +4 dB. Optimum load impedance is 600 ohms or greater.

❺ MIDI IN, OUT & THRU Terminals
The MIDI IN terminal receives MIDI control data from external MIDI equipment, and the MIDI OUT terminal transmits MIDI data from the DMP11 which is to be stored in or otherwise used by external MIDI equipment. The MIDI THRU terminal re-transmits any data received at the MIDI IN terminal, allowing "daisy-chaining" to other MIDI equipment.

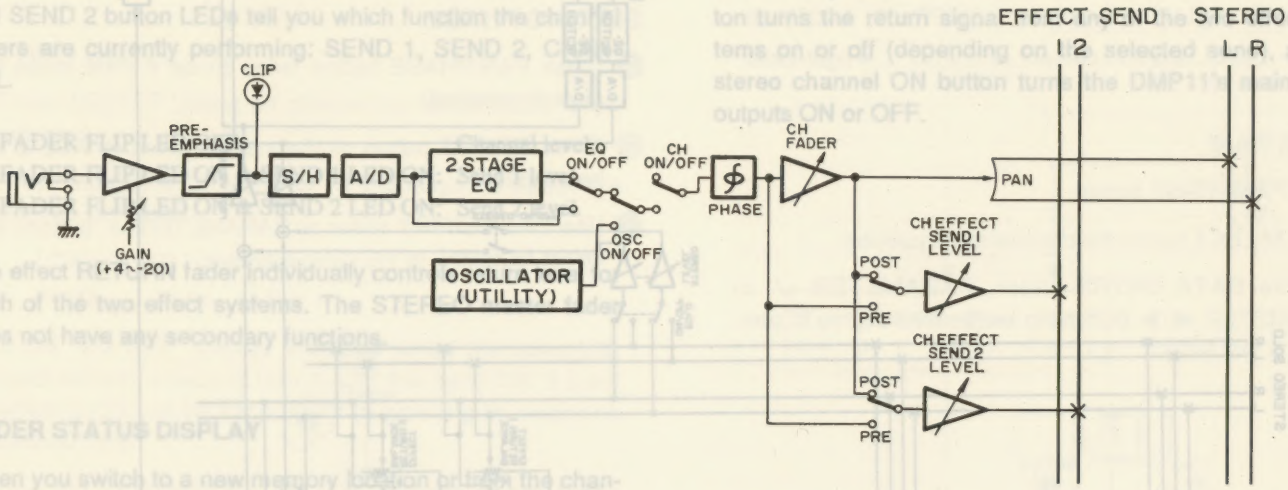
❻ Digital Cascade IN and OUT Terminals
These 8-pin DIN connectors are used to cascade 2 or more DMP11 units to increase the available number of inputs.
[Detailed instructions on page 28]

❼ Foot Volume Control Jack
This 1/4" monaural phone jack accepts an external foot controller such as the Yamaha FC9, permitting foot control of the signal level delivered from the DMP11's master stereo buss. A utility function allows the operation of the foot controller to be exchanged with that of the DATA ENTRY control so that the foot controller can be used for real-time control of virtually any of the DMP11's parameters (EQ, effects, etc.).
[Detailed instructions on page 25]

SIGNAL FLOW & FUNCTIONAL CONFIGURATION

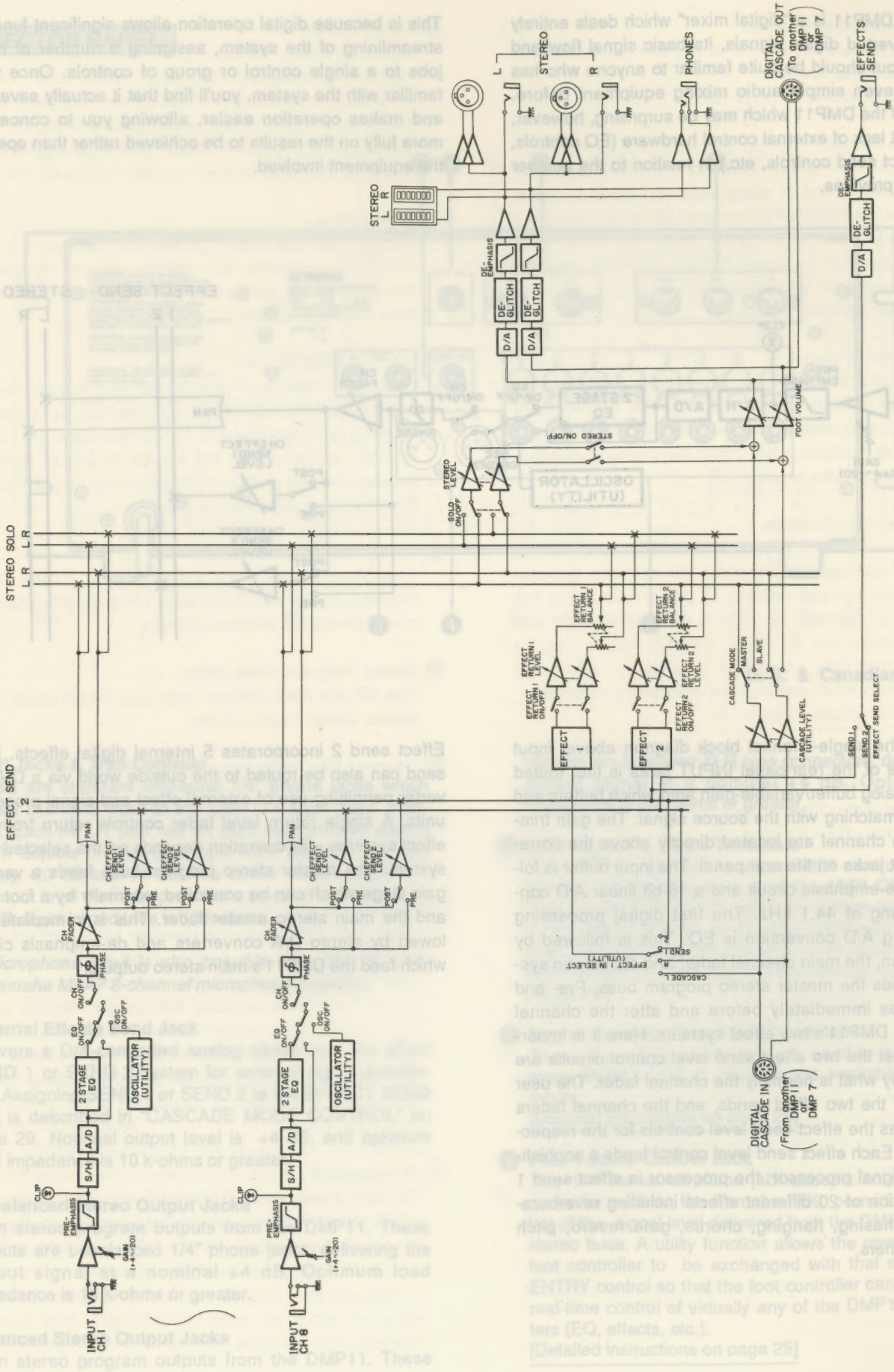
Although the DMP11 is a "digital mixer" which deals entirely with A/D-converted digital signals, its basic signal flow and functional layout should be quite familiar to anyone who has worked with even simple audio mixing equipment before. One aspect of the DMP11 which may be surprising, however, is its apparent lack of external control hardware (EQ controls, separate effect send controls, etc.) in relation to the number of functions it provides.

This is because digital operation allows significant functional streamlining of the system, assigning a number of related jobs to a single control or group of controls. Once you're familiar with the system, you'll find that it actually saves time and makes operation easier, allowing you to concentrate more fully on the results to be achieved rather than operating the equipment involved.



Referring to the single-channel block diagram above, input applied to one of the rear-panel INPUT jacks is first routed through an analog buffer/variable-gain amp which buffers and permits level matching with the source signal. The gain trimmers for each channel are located directly above the corresponding input jacks on the rear panel. The input buffer is followed by a pre-emphasis circuit and a 16-bit linear A/D converter, sampling at 44.1 kHz. The first digital processing stage following A/D conversion is EQ. This is followed by phase inversion, the main channel fader, and stereo pan system which feeds the master stereo program buss. Pre- and post-fader taps immediately before and after the channel fader feed the DMP11's two effect systems. Here it is important to note that the two effect send level control circuits are all controlled by what is normally the channel fader. The user selects one of the two effect sends, and the channel faders then function as the effect send level controls for the respective channels. Each effect send level control feeds a sophisticated digital signal processor: the processor in effect send 1 offers a selection of 20 different effects including reverberation, delay, phasing, flanging, chorus, gate reverb, pitch change and others.

Effect send 2 incorporates 5 internal digital effects. Either send can also be routed to the outside world via a D/A converter permitting use of external effect and signal processing units. A single return level fader controls return from both effect systems – its operation depends on the selected effect system. The master stereo program buss feeds a variable-gain stage which can be controlled externally by a foot pedal and the main stereo master fader. This is immediately followed by stereo D/A converters and de-emphasis circuits which feed the DMP11's main stereo outputs.


STEREO
L
R
PHONES
DIGITAL CASCADE OUT (To another DMP 11 or DMP 7)
EFFECTS SEND
STEREO L R
DE-EMPHASIS
DE-GLITCH
D/A
FOOT VOLUME
STEREO ON/OFF
STEREO LEVEL
SOLO ON/OFF
STEREO SOLO L R
EFFECT SEND 1 2
EFFECT RETURN 1 BALANCE
EFFECT RETURN 2 BALANCE
EFFECT RETURN 1 LEVEL
EFFECT RETURN 2 LEVEL
EFFECT RETURN 1 ON/OFF
EFFECT RETURN 2 ON/OFF
CASCADE MODE MASTER SLAVE
CASCADE LEVEL (UTILITY)
EFFECT 1
EFFECT 2
SEND 1
SEND 2
EFFECT SEND SELECT
EFFECT 1 IN SELECT (UTILITY)
CASCADE
DIGITAL CASCADE IN (From another DMP 11 or DMP 7)
PAN
CH EFFECT SEND 1 LEVEL
CH EFFECT SEND 2 LEVEL
POST
PRE
CH FADER
PHASE
CH ON/OFF
EQ ON/OFF
OSC ON/OFF
2 STAGE EQ
OSCILLATOR (UTILITY)
A/D
S/H
CLIP
PRE-EMPHASIS
GAIN (+4 ~ -20)
INPUT CH 1
INPUT CH 8

SECTION 1: GENERAL OPERATION

FADER OPERATION

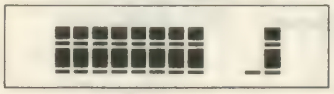
In terms of external appearance and operation, the DMP11 faders are exactly the same as those on any other mixer. There is, however, one significant difference: they have more than one function. You'll notice that despite the fact that the DMP11 has two effect systems, and two effect sends for each channel, corresponding level controls are not provided on the panel. In the DMP11, the jobs of controlling channel level and the two effect send levels have been assigned to a single fader for each channel. The FADER FLIP, SEND 1 and SEND 2 button LEDs tell you which function the channel faders are currently performing: SEND 1, SEND 2, CHANNEL.

FADER FLIP LED OFF:	Channel level.
FADER FLIP LED ON & SEND 1 LED ON:	Send 1 level.
FADER FLIP LED ON & SEND 2 LED ON:	Send 2 level.

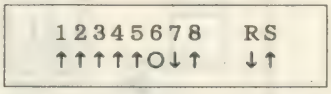
The effect RETURN fader individually controls return level for each of the two effect systems. The STEREO master fader does not have any secondary functions.

FADER STATUS DISPLAY

When you switch to a new memory location or from the channel level fader mode to an effect send mode, for example, the physical fader positions will probably not match the memorized fader data. Press the FADER STATUS button and the memorized fader levels for the selected mode or memory location will be shown graphically on the LCD display panel.



If you wish to accurately reposition the faders to match the memorized data press the FADER STATUS button a second time. A display similar to the following will appear:



The numbers on the top row correspond to channel faders 1 through 8, and the characters "R" and "S" corresponding to the RETURN and STEREO faders. A "o" below a number or character indicates that the corresponding fader is in the proper position. An up-arrow indicates that the fader must be raised, and a down-arrow indicates that the fader must be lowered. Move the faders with arrow markings in the indicated direction slowly until the arrow changes to a "o". This matches the fader position to the memorized data.
Press the FADER STATUS button again to return to the graphic fader position display.

CHANNEL ON BUTTONS

The ON buttons located immediately above each fader simply turn the signal related to the corresponding fader ON or OFF. These buttons are alternate-action types, alternating between ON and OFF states each time the button is pressed. The button is ON when the red LED built into it is lit. The channel ON buttons function like channel ON/OFF or MUTE switches on a conventional mixer. When OFF, the signal from that channel is shut off and will not appear at the stereo buss or any of the effect sends. The return channel ON button turns the return signal from any of the two effects systems on or off (depending on the selected send), and the stereo channel ON button turns the DMP11's main stereo outputs ON or OFF.

PAN

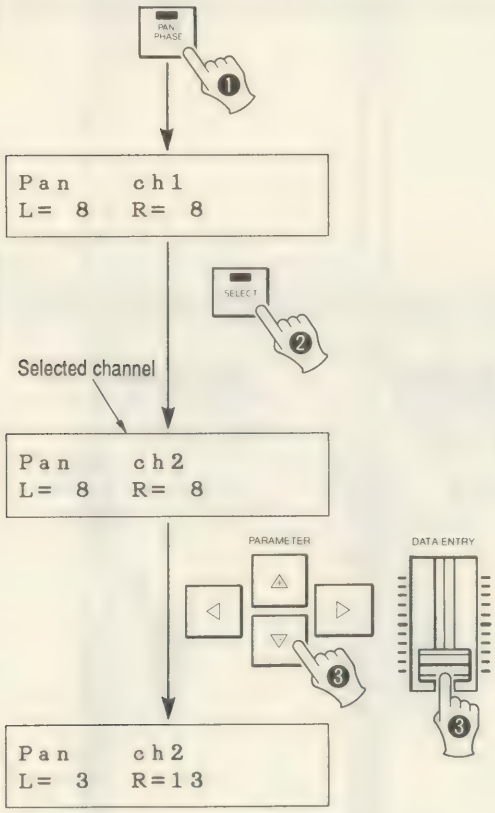
The DMP11 permits panning the signal from each input channel across the stereo buss in 17 discrete steps. The PAN display on the DMP11's LCD shows two numbers: L=n and R=n, where "n" is an integer between 0 and 16. A setting of L=8 R=8, for example, corresponding to center pan positioning. With a setting of L=16 R=0 the signal would be panned full left, and setting of L=12 R=4 would place the signal approximately three-quarters right.

L=16/R=0, L=15/R=1, ...L=8/R=8, ...L=1/R=15, L=0/R=16

left-most ← .....center..... → right-most

SETTING PAN

1. Press PAN/PHASE button.
2. Press SELECT button for channel to be panned.
3. Use the DATA ENTRY slider, PARAMETER +/- or PARAMETER ◀/▶ buttons to set desired degree of pan.

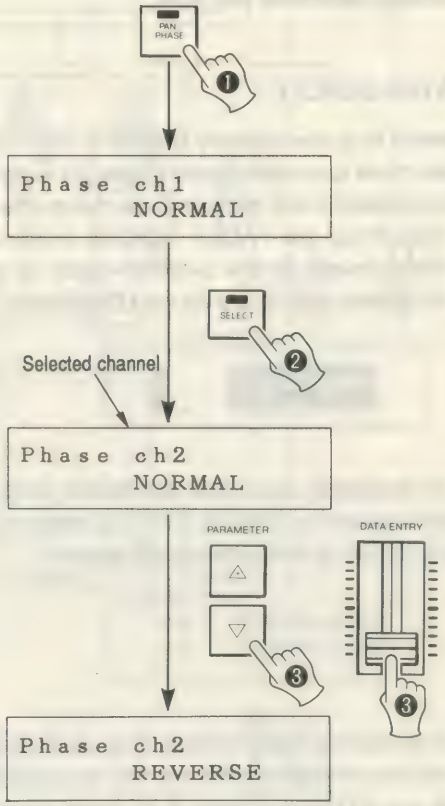


PHASE

As in a conventional mixer, the phase inversion function on the DMP11 allows matching the phases of different sources to prevent level and response irregularities. Although it is generally not a problem with line sources, proper phase matching can be critical with microphone sources (e.g. when the DMP11 is used with the optional MLA7 8-channel microphone amplifier).

SETTING PHASE

1. Press PAN/PHASE button twice (once if PAN mode is already selected).
2. Press SELECT button of channel for which PHASE is to be adjusted.
3. Use DATA ENTRY slider or PARAMETER +/- buttons to select NORMAL or REVERSE phase.



EQUALIZATION

The DMP11 offers a versatile 2-band EQ system on each channel. The HI and LOW bands can be set to function in either peaking, shelving or "dynamic" modes. In the peaking mode, both bands permit Q adjustment over a wide 0.1 – 5 range, permitting precise adjustment of a specific range of frequencies. In the dynamic (DYNA) mode, the center frequency sweeps automatically through the total 32Hz – 18 kHz EQ range.

SETTING EQ

❶ Press SELECT button on channel for which EQ is to be adjusted.

❷ Press either the LOW EQ or HI EQ button to select the desired EQ range:

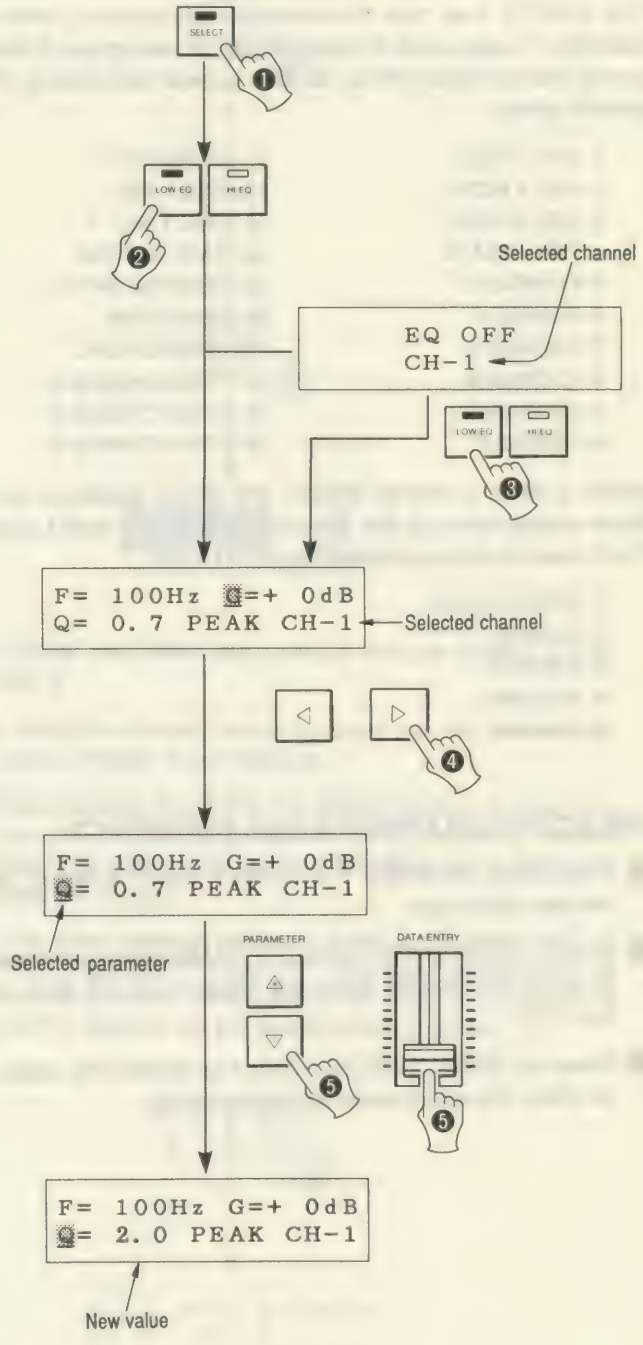
LOW EQ : 32 Hz – 18 kHz
HI EQ : 32 Hz – 18 kHz

❸ If the "EQ OFF" display appears, press the same EQ band selector a second time to turn that band ON. A band which is ON can be turned OFF by pressing its selector a second time.

❹ Use the PARAMETER ◄ / ► buttons to select the parameter to be changed (block cursor flashes over first character of parameter):

"F" = Frequency (32 Hz – 18 kHz)
"G" = Gain (-15 dB – + 15 dB)
"Q" = Quality Factor (0.1 – 5, only when "PEAK" mode is selected)
"PEAK" = Peaking EQ
"SHV" = Shelving EQ
"DYNA" = Dynamic EQ
Currently selected channel.

❺ Use DATA ENTRY slider or PARAMETER +/- buttons to set the value of the selected parameter.



* *Be careful when switching the HI band from shelving to peaking response. If a high-gain shelving response is switched to peaking, particularly in the low frequency range (32 Hz – 1 kHz), the resultant high-gain peak can cause low-frequency noise.*

INTERNAL EFFECTS SEND

The DMP11 has two completely independent effect send/return loops, each of which access its own group of top-quality internal digital effects. SEND 1 access the following 20 internal effects:

1. REV 1 HALL
2. REV 2 ROOM
3. REV 3 VOCAL
4. REV 4 PLATE
5. FLANGE A
6. FLANGE B
7. CHORUS A
8. CHORUS B
9. PHASING
10. TREMOLO
11. SYMPHONIC
12. EARLY REF. 1
13. EARLY REF. 2
14. GATE REVERB
15. REVERSE GATE
16. DELAY L&R
17. STEREO ECHO
18. PITCH CHANGE A
19. PITCH CHANGE B
20. PITCH CHANGE C

SEND 2 offers 5 internal effects, and allows access to outboard effects units via the rear-panel EFFECTS SEND jack. The 5 internal effects provided for SEND 2 are:

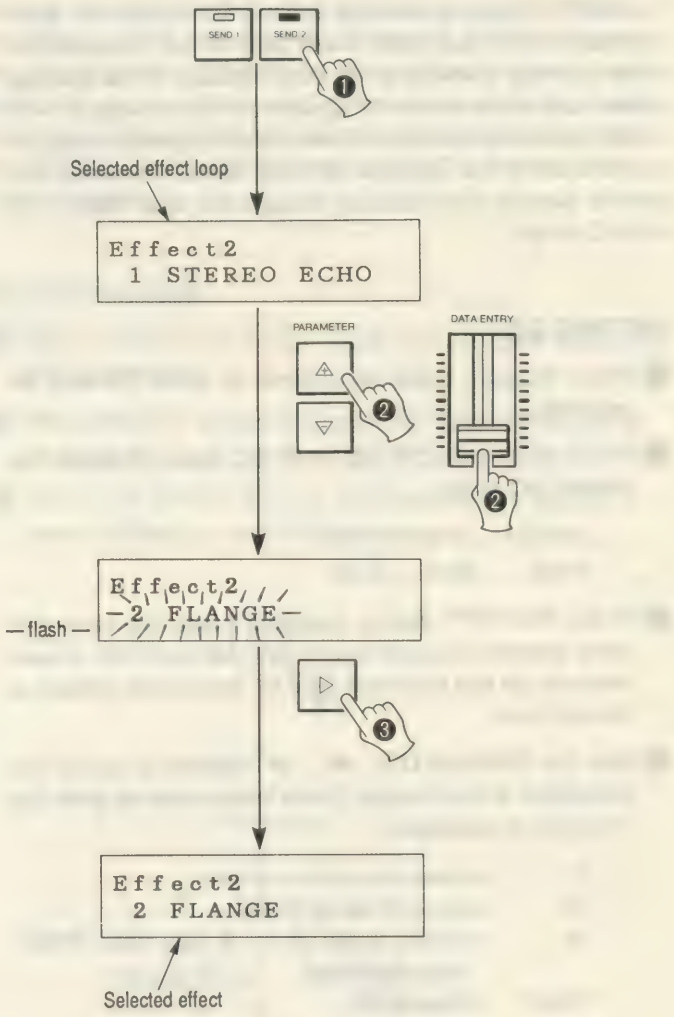
1. STEREO ECHO
2. FLANGE
3. CHORUS
4. PHASING
5. PANPOT

SELECTING AN EFFECT LOOP AND EFFECT

❶ Press either the SEND 1 or SEND 2 button to select the desired effect loop.

❷ Use the DATA ENTRY slider or PARAMETER +/- buttons to select the desired effect (the effect name will flash on the LCD)

❸ Press the EFFECT RECALL button to activate the selected effect (the effect name will stop flashing).

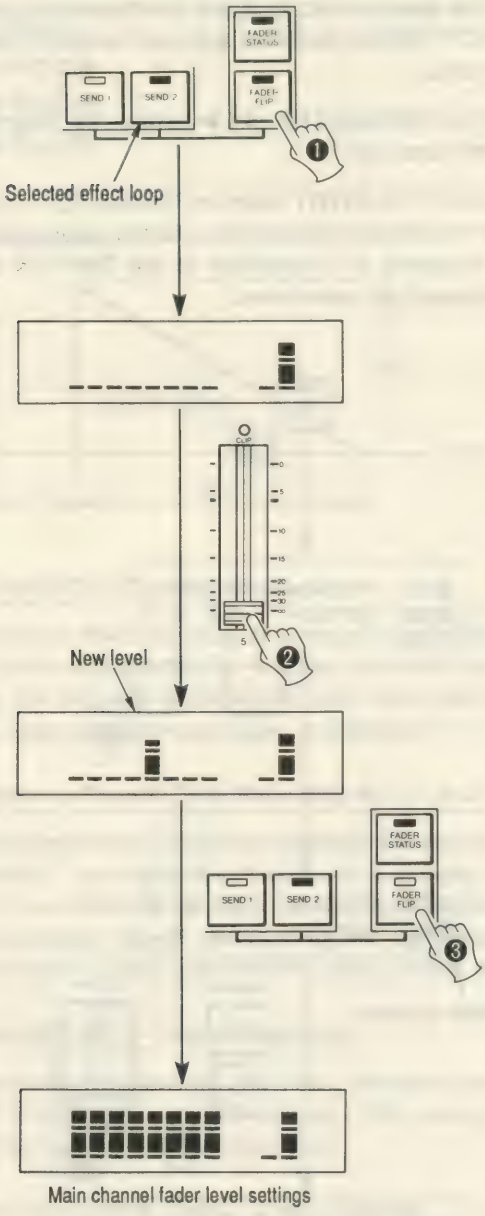


SETTING SEND LEVELS TO THE SELECTED EFFECT

❶ With the desired effect loop selected (SEND 1 or 2), press the FADER FLIP button. The FADER FLIP button LED will light, the FADER STATUS button LED will light and the current status of the faders for the selected SEND loop will be displayed on the LCD panel. The channel faders now function as effect send level controls for their own channels.

❷ Set up the desired effect send levels using the channel faders.

❸ Press the FADER FLIP button again to return to the main channel fader level settings.

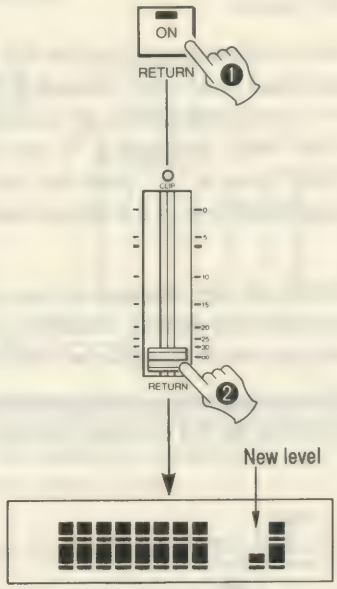


SETTING THE RETURN LEVEL FROM THE SELECTED EFFECT

❶ With the desired effect loop selected (SEND 1 or 2), press the RETURN channel ON button to turn its LED ON (if it is not already ON).

❷ Set the RETURN fader to the desired level.

* *This process must be carried out independently for each effect loop. As you switch from effect loop to effect loop (e.g. from SEND 1 to SEND 2) the RETURN ON/OFF status and RETURN fader level memorized for the selected effect loop will be recalled.*

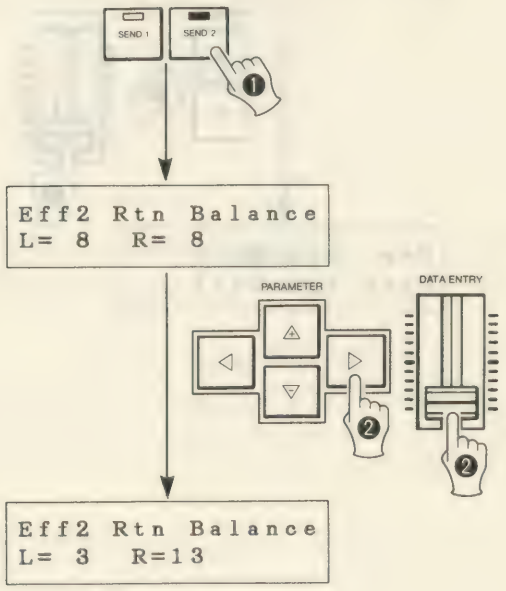


SETTING RETURN BALANCE FROM SEND 1 OR SEND 2

The left/right-channel return balance can be individually adjusted for SEND 1 and SEND 2.

❶ After pressing the SEND 1 or SEND 2 button to select the desired effect loop, press the SEND button a second time. This calls either the "Eff1 Rtn Balance" or "Eff2 Rtn Balance" display.

❷ The return balance setting is made in the same way as PAN, described on page 11. Use the PARAMETER ◀ and ▶ buttons, PARAMETER +/- buttons or the DATA ENTRY slider to set the desired return balance.



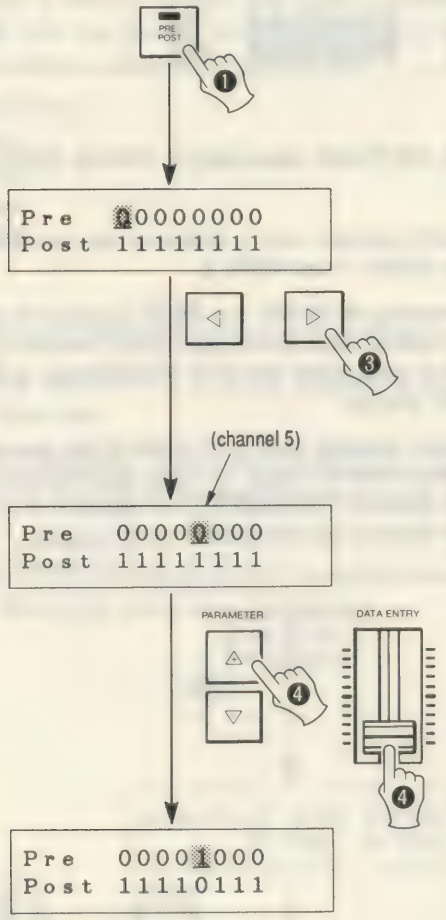
SELECTING PRE- OR POST-FADER EFFECT SEND

❶ Press the PRE/POST button.

❷ From left to right, the 8 columns of 0/1 digits that appear on the LCD represent input channels 1 through 8. "0" represents OFF, and "1" represents ON. If, for example, the first-column digit in the "PRE" (top) row is "0" and the digit below it in the "POST" row is "1," then the channel-1 effect send is set post-fader (this is the default setting for all channels).

❸ Use the PARAMETER ◀ / ▶ buttons or the channel SELECT buttons to select the desired channel send (the cursor will flash in the top row of the selected column).

❹ Use the PARAMETER +/- buttons or DATA ENTRY slider to set PRE or POST status for the selected channel.

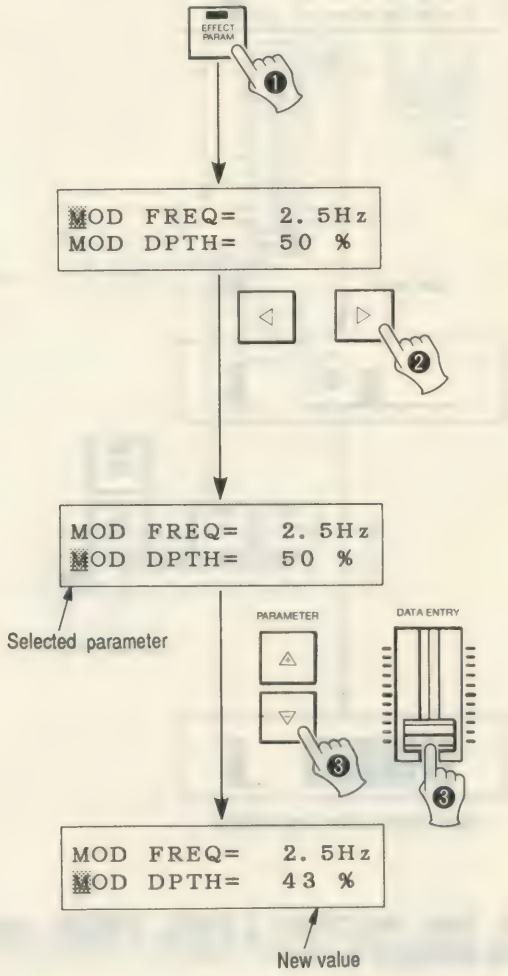


MODIFYING EFFECT PARAMETERS

❶ With the desired effect loop and effect selected, press the EFFECT PARAM button to activate the effect parameter edit mode.

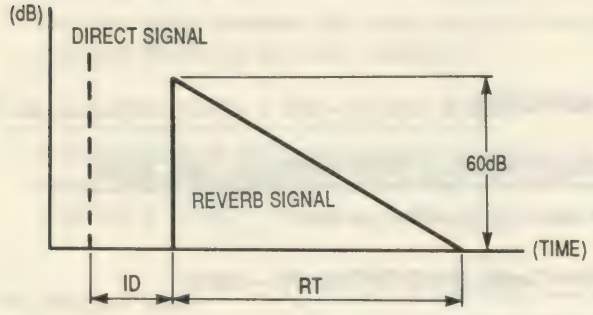
❷ Use the PARAMETER ◀ / ▶ buttons to selected the desired parameter.

❸ Use the DATA ENTRY slider or PARAMETER +/- buttons to set the desired value for the selected parameter.
The following is a summary of the DMP11's internal effects and their parameters:



SEND 1 EFFECTS & PARAMETERS

1. REV 1 HALL
2. REV 2 ROOM
3. REV 3 VOCAL
4. REV 4 PLATE



Reverb Time (RT): 0.3 – 99 seconds

The length of time it takes for the level of reverberation at 1 kHz to decrease by 60 dB – virtually to silence. In a live setting, this depends on several factors: room size, room shape, type of reflective surfaces, and others.

High Frequency Reverb Time Ratio (HI): x0.1 – x1.0

Natural reverberation varies according to the frequency of the sound. The higher the frequency, the more sound tends to be absorbed by walls, furnishings and even air. This parameter allows alteration of the high-frequency reverb time in relation to the mid-frequency reverb time.

Initial Delay (ID): 0.1 – 1000 milliseconds

This parameter represents the delay between the direct sound of an instrument and the first of the many reflections that together form reverberation.

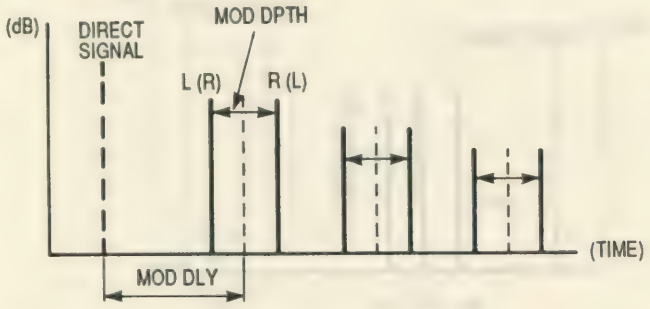
High-pass Filter (HPF): THRU, 32 Hz – 1000 Hz

Permits rolling off the the low-frequency content of the reverb signal below the set frequency. The HPF is OFF when set to THRU.

Low-pass Filter (LPF): 1 kHz – 18 kHz, THRU

Permits rolling off the high-frequency content of the reverb signal above the set frequency. The LPF is OFF when set to THRU.

5. FLANGE A
6. FLANGE B



Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the speed of modulation, and hence the rate at which the effect varies.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the amount of delay time variation, thus adjusting the depth of the effect. At the maximum setting, the delay time is varied by +4 msec.

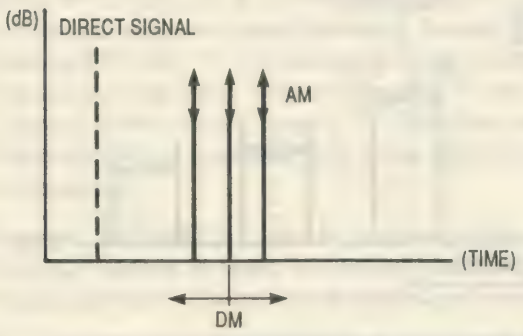
Modulation Delay (MOD DLY): 0.1 ms – 100 ms

This sets the basic delay time from the initial direct sound to the beginning of the flange effect.

Feedback Gain (F B GAIN): 0% – 99%

Determines the amount of flange signal which is fed back to the input of the processor for further modulation. More feedback increases the overall complexity, "strength" and decay time of the effect.

7. CHORUS A
8. CHORUS B



Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the delay time modulation speed.

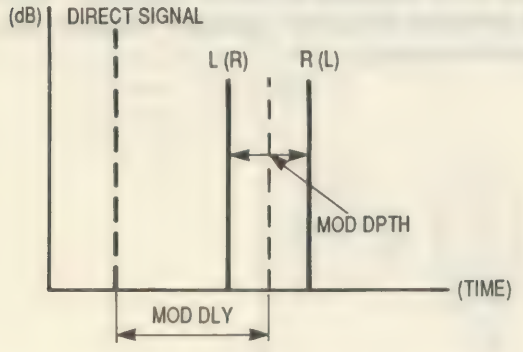
Delay Modulation Depth (DM): 0% – 100%

This sets the amount by which the delay time of one delay signal is varied in relation to the other. At the maximum setting the delay time is varied by +4 msec.

Amplitude Modulation Depth (AM): 0% – 100%

Sets the amount by which the amplitude (level) of the input signal is varied.

9. PHASING



Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the modulation speed of the phasing effect.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the amount of delay time variation, thus adjusting the depth of the effect. At the maximum setting, the delay time is varied by +4 msec.

Modulation Delay (MOD DLY): 0.1 – 5.8 milliseconds

This sets the delay time from the initial direct sound to the beginning of the phasing effect.

10. TREMOLO

Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the modulation speed of the tremolo effect.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the depth (amount of amplitude variation) of the tremolo effect.

11. SYMPHONIC

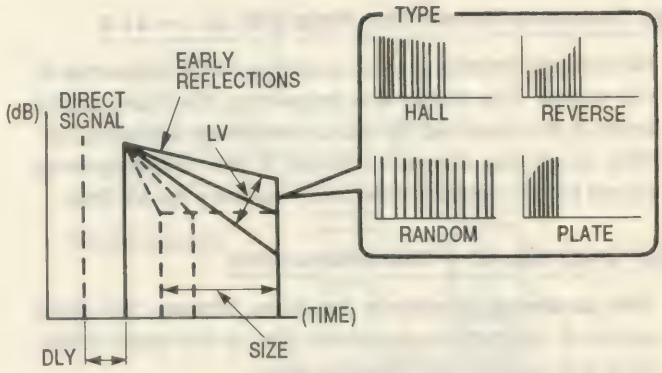
Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the speed of the effect variation.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the depth of the effect.

12. EARLY REF. 1
13. EARLY REF. 2
14. GATE REVERB
15. REVERSE GATE



Early Reflection Pattern (TYPE): HALL/RANDOM/ REVERSE/PLATE

The TYPE parameter selects one of four different patterns of early reflections. HALL produces a typical grouping of early reflections that would occur in a performing environment such as a hall. RANDOM produces an irregular series of reflections that could not occur naturally. PLATE produces a typical grouping of reflections that would occur in a plate reverb unit. REVERSE generates a series of reflections that increase in level – like the effect produced by playing a recorded reverberation sound backwards.

Room Size (SIZE): 0.1 – 20

This parameter sets the time intervals between the early reflections – a feature of natural early reflections which is directly proportional to the size of the room.

Liveness (LV): 0 – 10

"Liveness" refers to the rate at which the reflected sounds fade. An acoustically "dead" room is simulated by setting this parameter to zero. Increasing the value of this parameter creates an increasingly "live" sound, simulating an increasing area of reflective surfaces in the room.

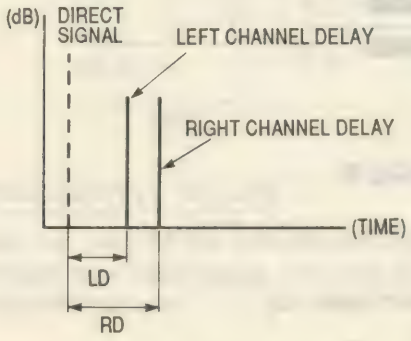
Delay (DLY): 0.1 – 1000 milliseconds

The time delay between the direct sound of the instrument and the first of the early reflections.

Low-pass Filter (LPF): 1 kHz – 18 kHz, THRU

Permits rolling off the high-frequency content of the early reflection signal above the set frequency. The LPF is OFF when set to THRU.

16. DELAY L&R



Left Channel Delay (LD): 0.1 – 1400 milliseconds

Sets the time between the direct sound of the instrument and the first repeat heard from the left channel.

Left Channel Feedback Gain (LFG): 0% – 99%

Sets the amount of the left-channel delay signal fed back to the input of the processor. The higher the feedback gain setting, the greater the number of delayed repeats produced.

Right Channel Delay (RD): 0.1 – 1400 milliseconds

Sets the time between the direct sound of the instrument and the first repeat heard from the right channel.

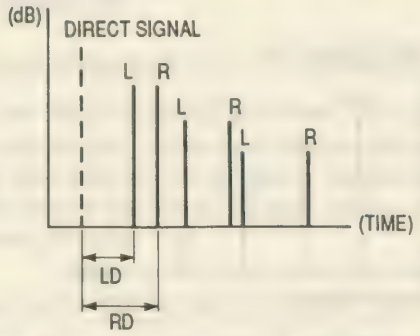
Right Channel Feedback Gain (RFG): 0% – 99%

Sets the amount of the right-channel delay signal fed back to the input of the processor. The higher the feedback gain setting, the greater the number of delayed repeats produced.

High Frequency Feedback (HIGH): x0.1 – x1.0

Controls feedback in the high-frequency range. The amount of high-frequency feedback in relation to the rest of the signal is reduced as the value of this parameter is decreased.

17. STEREO ECHO



Left Channel Delay (LD): 0.1 – 700 milliseconds

After the delay set by this parameter, the first left- channel echo will appear. Subsequent echoes will appear at the same time interval, the number of echoes depending on the setting of the feedback gain setting for the corresponding channel.

Left Channel Feedback Gain (LFG): 0% – 99%

Adjusts the number of echoes that follow the direct signal – from zero to a virtually infinite number of echoes at the maximum setting.

Right Channel Delay (RD): 0.1 – 700 milliseconds

Same as Left Channel Delay, but affects the right channel only.

Right Channel Feedback Gain (RFG): 0% – 99%

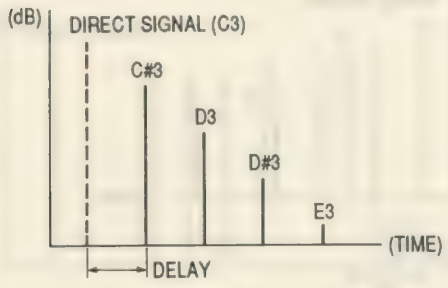
Same as Left Channel Feedback Gain, but affects the right channel only.

High Frequency Feedback (HIGH): x0.1 – x1.0

Controls feedback in the high-frequency range. The amount of high-frequency feedback in relation to the rest of the signal is reduced as the value of this parameter is decreased.

18. PITCH CHANGE A

EX) PITCH= +1, FG= 30, INPUT PITCH= C3



Pitch Shift (PITCH): -12 – +12

Sets the degree of pitch change in semitone steps. +12 corresponds to an output pitch one octave higher than the input pitch, and -12 produces an output pitch one octave lower than the input pitch. An external MIDI keyboard can even be used to select the desired degree of pitch shift.

Fine Tuning (FINE): -100 – +100

Permits extremely fine pitch adjustment in one-cent steps.

Delay Time (DELAY): 0.1 – 400 milliseconds

Sets the delay between the direct sound (input signal) and the pitch-shifted output signal.

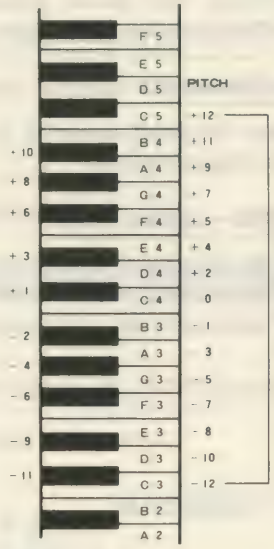
Feedback Gain (FG): 0 – 99%

When this parameter is set to 0, only a single pitch-shifted sound is produced after the DELAY time has elapsed. As the value of this parameter is increased, however, more and more delayed repeats are produced, each pitch-shifted up or down from the previous repeat according to the setting of the PITCH parameter.

Base Key (KEY): OFF, C1 – C6

This parameter sets the "BASE KEY" for an external MIDI synthesizer used to control the PITCH parameter (the MIDI OUT terminal of the synthesizer must be connected to the DMP11 MIDI IN terminal, and the DMP11 must be set to receive on the MIDI channel on which the synthesizer is transmitting). If, for example, the BASE KEY parameter is set to C4, pressing the C3 key on the synthesizer (C3 is one octave lower than C4) will set the pitch change value to -12. Pressing D4 on the keyboard would produce a pitch increase of one whole-tone (+2). If a key more than an octave higher or lower than the BASE KEY is pressed, no pitch change effect is produced although the direct sound will still be output. If the BASE KEY parameter is set OFF, pitch cannot be controlled via the MIDI IN terminal.

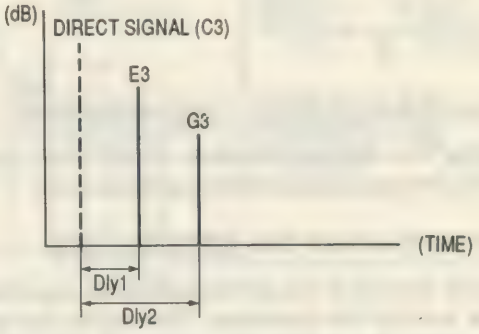
EX) Base key (KEY)= C4



Pitch can be changed over a ±12 range with the Base key (KEY) in the center.

19. PITCH CHANGE B

EX) P1= +4, P2= +7, INPUT PITCH= C3



1st Pitch Shift (P1): -12 – +12

Sets the pitch of the first pitch-shifted note between one octave below (-12) and one octave above (+12) the input note.

1st Fine Tuning (F1): -100 – +100

Permits fine tuning of the first pitch-shifted note in 1-cent steps.

1st Delay Time (Dly1): 0.1 – 200 milliseconds

Determines the time delay between input of the original note and output of the first pitch-shifted note.

2nd Pitch Shift (P2): -12 – +12

Sets the pitch of the second pitch-shifted note between one octave below (-12) and one octave above (+12) the input note.

2nd Fine Tuning (F2): -100 – +100

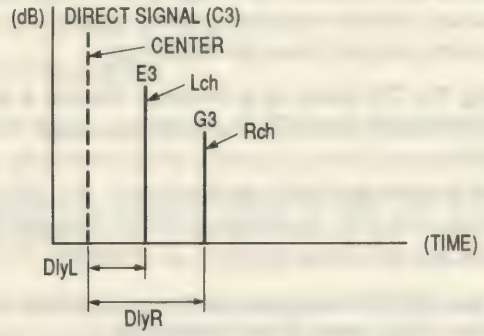
Permits fine tuning of the second pitch-shifted note in 1-cent steps.

2nd Delay Time (Dly2): 0.1 – 200 milliseconds

Determines the time delay between input of the original note and output of the second pitch-shifted note.

20. PITCH CHANGE C

EX) PL= +4, PR= +7, INPUT PITCH= C3



Left Pitch Shift (PL): -12 – +12

Sets the pitch of the left-channel pitch-shifted note between one octave below (-12) and one octave above (+12) the input note.

Left Fine Tuning (FL): -100 – +100

Permits fine tuning of the left-channel pitch-shifted note in 1-cent steps.

Left Delay Time (DlyL): 0.1 – 200 milliseconds

Determines the time delay between input of the original note and output of the left-channel pitch-shifted note.

Right Pitch Shift (PR): -12 – +12

Sets the pitch of the right-channel pitch-shifted note between one octave below (-12) and one octave above (+12) the input note.

Right Fine Tuning (FR): -100 – +100

Permits fine tuning of the right-channel pitch-shifted note in 1-cent steps.

Right Delay Time (DlyR): 0.1 – 200 milliseconds

Determines the time delay between input of the original note and output of the right-channel pitch-shifted note.

SEND 2 EFFECTS & PARAMETERS

1. STEREO ECHO

Left Channel Delay (LD): 0.1 – 175 milliseconds

After the delay set by this parameter, the first left-channel echo will appear. Subsequent echoes will appear at the same time interval, the number of echoes depending on the setting of the feedback gain setting for the corresponding channel.

Left Channel Feedback Gain (LFG): 0% – 99%

Adjusts the number of echoes that follow the direct signal – from zero to a virtually infinite number of echoes at the maximum setting.

Right Channel Delay (RD): 0.1 – 175 milliseconds

Same as Left Channel Delay, but affects the right channel only.

Right Channel Feedback Gain (RFG): 0% – 99%

Same as Left Channel Feedback Gain, but affects the right channel only.

High Frequency Feedback (HIGH): x0.1 – x1.0

Controls feedback in the high-frequency range. The amount of high-frequency feedback in relation to the rest of the signal is reduced as the value of this parameter is decreased.

2. FLANGE

Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the speed of modulation, and hence the rate at which the effect varies.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the amount of delay time variation, thus adjusting the depth of the effect. At the maximum setting, the delay time is varied by +4 msec.

Modulation Delay (MOD DLY): 0.1 ms – 100 ms

This sets the basic delay time from the initial direct sound to the beginning of the flange effect.

Feedback Gain (F B GAIN): 0% – 99%

Determines the amount of flange signal which is fed back to the input of the processor for further modulation. More feedback increases the overall complexity, "strength" and decay time of the effect.

3. CHORUS

Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the delay time modulation speed.

Delay Modulation Depth (DM): 0% – 100%

This sets the amount by which the delay time of one delay signal is varied in relation to the other. At the maximum setting the delay time is varied by +4 msec.

Amplitude Modulation Depth (AM): 0% – 100%

Sets the amount by which the amplitude (level) of the input signal is varied.

4. PHASING

Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the modulation speed of the phasing effect.

Modulation Depth (MOD DPTH): 0% – 100%

Sets the amount of delay time variation, thus adjusting the depth of the effect. At the maximum setting, the delay time is varied by +4 msec.

Modulation Delay (MOD DLY): 0.1 – 5.8 milliseconds

This sets the delay time from the initial direct sound to the beginning of the phasing effect.

5. PANPOT

Modulation Frequency (MOD FREQ): 0.1 Hz – 20 Hz

Sets the speed of pan (the speed at which the signal sweeps from the left to right channel and vice versa).

Modulation Depth (MOD DPTH): 0% – 100%

Sets the spatial depth of the pan effect: i.e. how far the signal apparently moves within the stereo sound field.

EXTERNAL EFFECTS

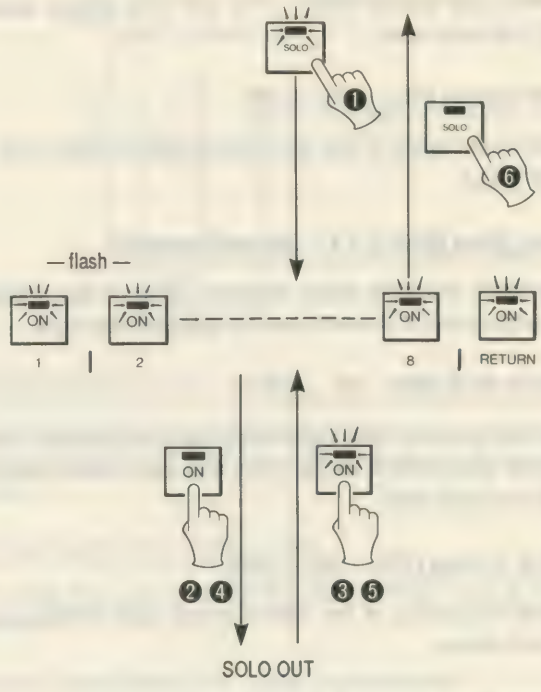
Either SEND 1 or SEND 2 can be assigned to the EFFECT SEND jack allowing external signal processing. See "CASCADE MODE CONTROL" on page 29 for instructions on assigning the desired effect system to the EFFECT SEND jack. The output from the external effect device can be returned to any of the DMP11's input channels.

SOLO

The DMP11 SOLO system permits monitoring of a specified input channel, group of input channels, or effect return signal via the stereo program buss.

USING THE SOLO SYSTEM

1. Press the SOLO button to activate the solo mode. The SOLO button LED, eight channel ON button LEDS and RETURN channel ON button LED will flash.
2. Press the ON button(s) of the channel(s) to be monitored. The ON button LEDs of the selected channel(s) will light continuously and the selected channel signals will be fed to the stereo program buss for monitoring.
3. Pressing the ON button of a selected channel a second time disengages the SOLO monitoring mode for that channel.
4. Press the RETURN channel ON button to monitor the effect return signal from the currently selected SOLO channels and effect loop (SEND 1 or SEND 2).
5. Press the RETURN channel ON button a second time to disengage effect return SOLO monitoring.
6. Press the SOLO button a second time to disengage the solo mode.



MEMORY

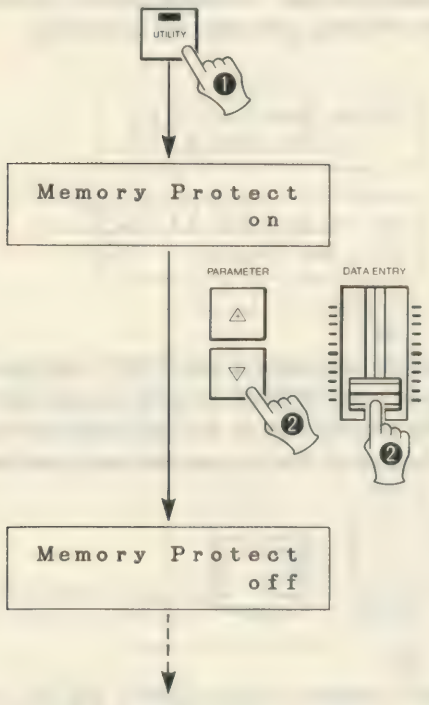
INTERNAL MEMORY

The DMP11 has 96 internal RAM memory locations (1 – 96) which are capable of storing all DMP11 parameters. There is also a memory location 0, and this a read only memory which contains the initial data for all DMP11 parameters. The DMP11 memory system allows you to store entire "scenes" (a "scene" is a complete set of parameters: fader settings, effects, EQ, etc.) in each memory location. The DMP11 internal memory is backed up by a special internal battery that maintains the memory contents even when the power is switched OFF.

MEMORY PROTECT

The DMP11 has a memory protect feature which prevents unwanted alterations to the memory contents. When memory protect is ON, the memory store operation can not be performed. Make sure memory protect is OFF prior to storing new memory data.

1. Press UTILITY button. The memory protect function is the first called when the UTILITY button is pressed.
2. Use the PARAMETER +/- buttons to turn memory protect ON or OFF.
3. Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.

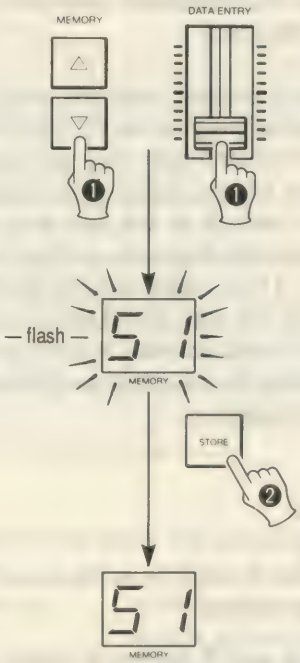


* *MEMORY PROTECT is automatically turned ON when the DMP11 power switch is turned ON.*

MEMORY STORE

This function is used to store the scene (all parameters) currently set up on the DMP11. Memory protect must be OFF prior to using the store function.

1. Use the memory ▲ and ▼ buttons to select the memory location into which you wish to STORE. The selected memory location is shown on the MEMORY LED display. Hold down either MEMORY ▲ or ▼ button to scroll quickly through the memory locations. The selected memory location number will flash on the LED display.
2. Press the MEMORY STORE button to store all current DMP11 settings in the selected memory location. The memory location number will stop flashing if the STORE operation is successful.



* *If you wish to keep any parameter changes you have made, a STORE operation must be performed to the current or a different memory location. If this is not done, the parameter changes will be lost as soon as a new memory location is selected and recalled.*

* *The "MEMORY PROTECT!" display will appear and the STORE operation will be aborted if you attempt to STORE with the DMP11 memory protect function ON.*

```
Memory Protect !
```

* *If you attempt to STORE to memory location 0, the display will read "MEMORY NO. 0 is READ ONLY!" and the STORE operation will be aborted.*

```
Memory No. 0 is
    Read Only !!
```

MEMORY STORE TO PRESET EFFECT PARAMETER DEFAULT VALUES

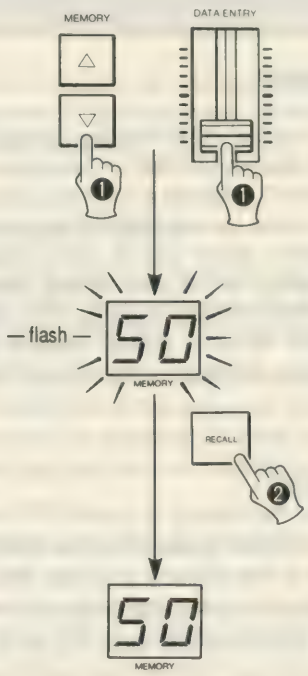
If the STORE button is pressed while the effect parameter display is active (i.e. after pressing the EFFECT PARAM button), the DMP11 will respond with "Are you sure?" on the LCD display. Press the STORE button again to store the current effect parameter settings as the new default values in addition to storing all current parameter settings in the current user memory location. If this is done with the MEMORY PROTECT function ON, only the new default effect parameter settings will be stored. It is also possible to store only the effect parameter default settings by executing the STORE operation with memory location 0 selected.

MEMORY RECALL

This function allows you to recall an entire scene from a previously stored memory location.

❶ Use the memory ▲ and ▼ buttons to select the memory location from which you wish to RECALL data. The selected memory location is shown on the MEMORY LED display. Hold down either MEMORY ▲ or ▼ button to scroll quickly through the memory locations. The selected memory location number will flash on the LED display.

❷ Press the MEMORY RECALL button to recall all DMP11 settings from the selected memory location. The memory location number will stop flashing if the RECALL operation is successful, and the title of the recalled scene will appear on the top line of the LCD if one has been programmed using the MEMORY TITLE EDIT function (see "EDIT TITLE", page 24).



* *If the memory protect function is ON when a memory is recalled, "PROTECT" will appear on the bottom line of the LCD. The memory protect function being ON does not prevent memory recall.*

* *If you select a memory location which has not been previously stored, the display will read "This Memory Has No Data!". If you then attempt to RECALL this memory the display will read ">> CAUTION!! << >> NO DATA <<" and the RECALL operation will be aborted.*

```
This Memory Has
     No Data !!
```

```
>> Caution !! <<
>>  No Data   <<
```

* *If any changes are made to any DMP11 settings after a memory has been recalled, an LED dot will light to the right of the second digit in the LED MEMORY number display, indicating that the recalled data has been edited.*

* *The entire contents of the DMP11 memory can be cleared by first turning the power OFF, then turning the power back ON while holding both the FADER FLIP and PARAMETER ◀ buttons.*

EDIT TITLE

The EDIT TITLE function makes it possible to assign up to a 16-character (including spaces) title to each scene stored in the DMP11 memory. The assigned title appears in the LCD when the corresponding memory number is selected, facilitating identification.

❶ Make sure the MEMORY PROTECT function is OFF.

❷ Use the normal MEMORY RECALL procedure to recall the memory number to which you wish to assign a title.

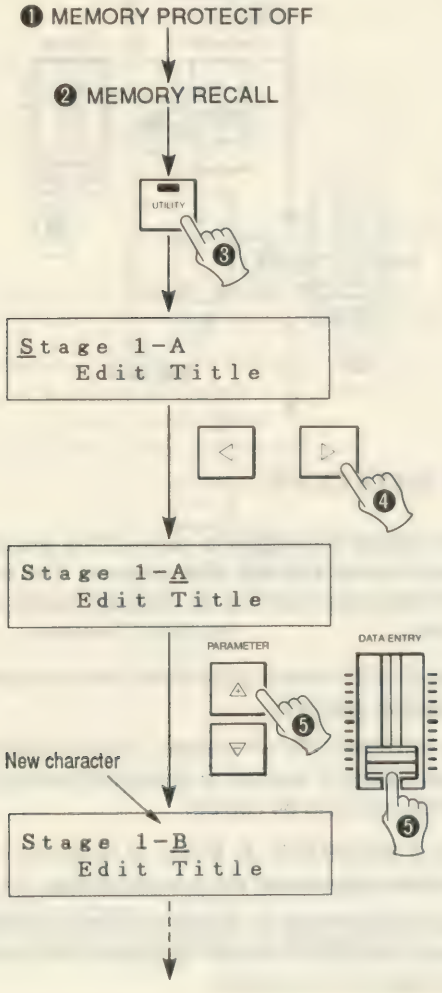
❸ Press the UTILITY button twice to call the EDIT TITLE function. The EDIT TITLE function cannot be accessed if memory number 0 is selected.

❹ A line cursor appears under the first character on the first line of the LCD. Use the PARAMETER ◀ ▶ buttons to move the cursor to any character on the first line you wish to change.

❺ Use the PARAMETER +/- buttons or DATA ENTRY slider to place a new character in the current cursor location.

❻ Move the cursor to the next character to be edited and continue the process until your title is completed on the first line of the LCD.

❼ Press any function button other than the UTILITY, MEMORY or PARAMETER buttons to exit the utility mode.



* *The following characters can be selected using the PARAMETER ENTRY +/- buttons or DATA ENTRY slider, in the following sequence:*

0	1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z				
a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z				
:	;	<	=	>	?	!	#	$	%
&	`	(	)	*	+	,	−	.	/
[	¥	]	_	{	|	}	@	^	→
←	α	ä	ß	ε	μ	σ	ρ	g	√
-¹	¡	×	¢	£	ñ	ö	ρ	α	θ
∞	Ω	ü	Σ	π	ŝ	♀	千	万	円
÷									

0	1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z				
a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z				
▫	▫	「	」	、	•				
ヲ	ァ	ィ	ゥ	ェ	ォ	ャ	ュ	ョ	ッ
ー	ア	イ	ウ	エ	オ	カ	キ	ク	ケ
コ	サ	シ	ス	セ	ソ	タ	チ	ツ	テ
ト	ナ	ニ	ヌ	ネ	ノ	ハ	ヒ	フ	ヘ
ホ	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ラ
リ	ル	レ	ロ	ワ	ン	゛			

* *In the EDIT TITLE mode the following buttons can also be used:*

MEMORY ▲ : Insert a space and move all characters on andto the right of the cursor one position to the right.

MEMORY ▼ : Delete the character on the cursor and move all characters to the right of the cursor one position to the left.

MEMORY STORE : Change the character on the cursor to a space.

MEMORY RECALL : Fill the rest of the line to the right of the cursor with the character at the cursor position.

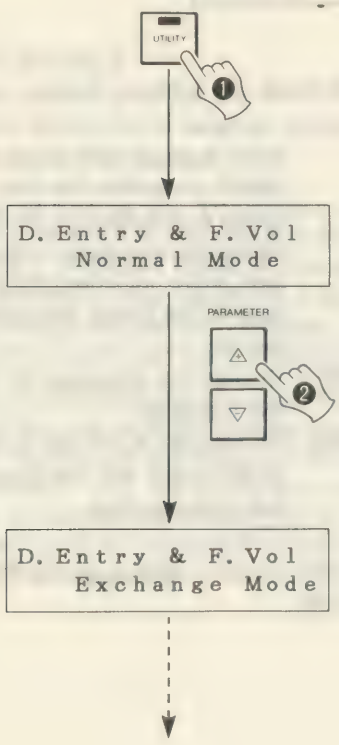
* *The EDIT TITLE utility function will <u>not</u> appear if MEMORY PROTECT is ON.*

FOOT CONTROL

A optional Yamaha FC9 Foot Controller plugged into the DMP11's rear-panel FOOT VOL jack performs the same function as the master STEREO fader, controlling overall output volume. It is possible to exchange the function of the foot control unit with that of the DATA ENTRY control, making it possible to control variable parameters via the foot control rather than volume. Foot control of equalization or effect parameters could be used for real-time expression control during a performance.

EXCHANGING FOOT CONTROL AND DATA ENTRY FUNCTIONS

1. Press the UTILITY button a few times to call the D.ENTRY & F.VOL function.
2. Use the PARAMETER +/- buttons to select the NORMAL MODE (foot controller volume, data entry parameters) or EXCHANGE MODE (foot controller parameters, data entry volume).
   To use the foot controller for parameter control, simply call the parameter to be controlled to the LCD display in the same way as you would for normal programming. The value of the selected parameter will be controlled by the foot controller as long as the EXCHANGE MODE is set.
3. Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.

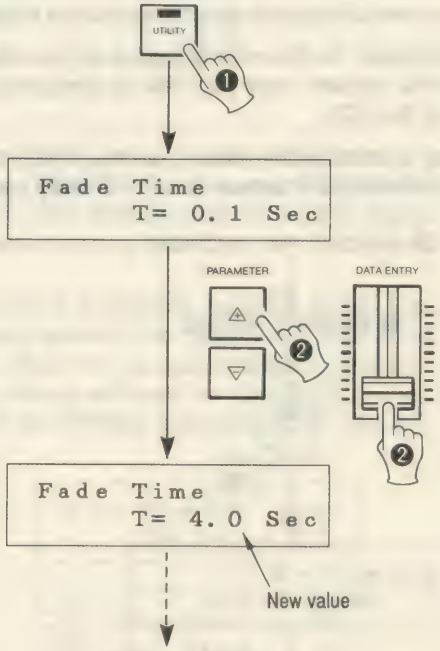


OTHER UTILITY FUNCTIONS

FADE TIME

This function sets the time it takes for the fader settings to change over the maximum fade range, and thus the fade time when scenes are switched.

1. Press the UTILITY button a few times until the FADE TIME function appears.
2. Use the PARAMETER +/- buttons or DATA ENTRY slider to select the desired fade time:
   0.1, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0, 10 sec.
3. Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.



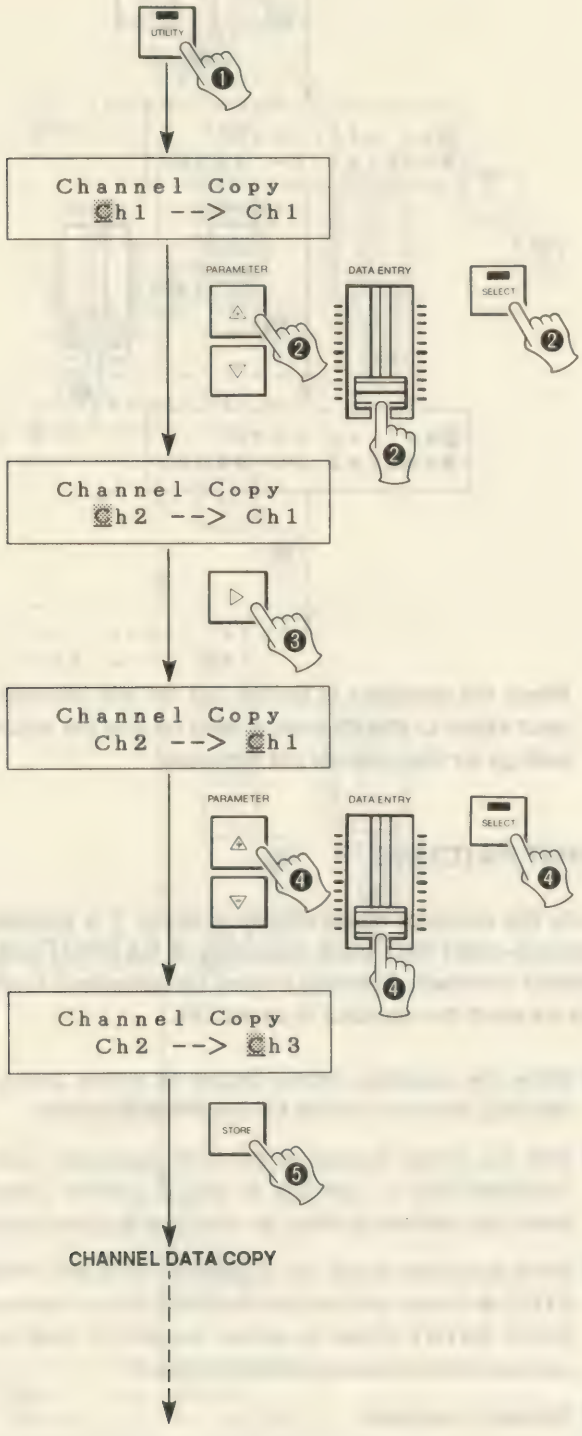
CHANNEL DATA COPY

This function makes it possible to copy all the programmed data from one channel into any other channel. This can save considerable time when setting up complex parameters for the entire mixer.

1. Press the UTILITY button a few times until the CHANNEL COPY function appears.
2. Use the PARAMETER +/- buttons, DATA ENTRY slider or channel SELECT buttons to select the source channel (from which data is to be copied).
3. Press the PARAMETER ▶ button to move the cursor to the destination (rightmost) channel parameter.
4. Use the PARAMETER +/- buttons, DATA ENTRY slider or channel SELECT buttons to select the channel to which the data is to be copied.

❺ Press the MEMORY STORE button to execute the copy operation.

❻ Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.



* *Note that data is only copied to the edit buffer and that a MEMORY STORE operation must be carried out to store the copied data in an internal memory location.*

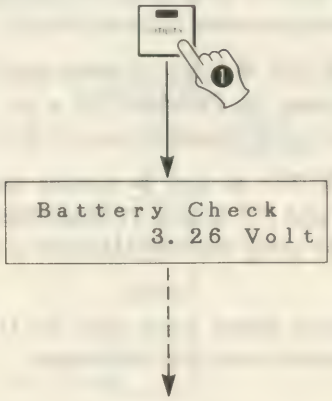
BATTERY CHECK

This function provides a warning that the memory backup battery must be replaced. Always refer battery replacement to a qualified Yamaha service center. The internal memory backup battery should last for approximately 5 years.

❶ Press the UTILITY button a few times until the BATTERY CHECK function appears.

❷ The current battery voltage is displayed on the bottom line of the LCD.
REPLACE BATTERY IF BATTERY VOLTAGE IS BELOW 2.5 VOLTS!!

❸ Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.

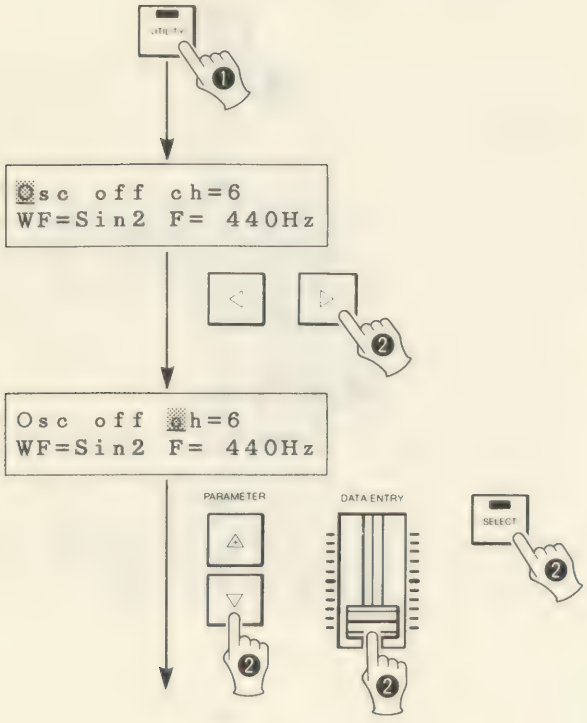


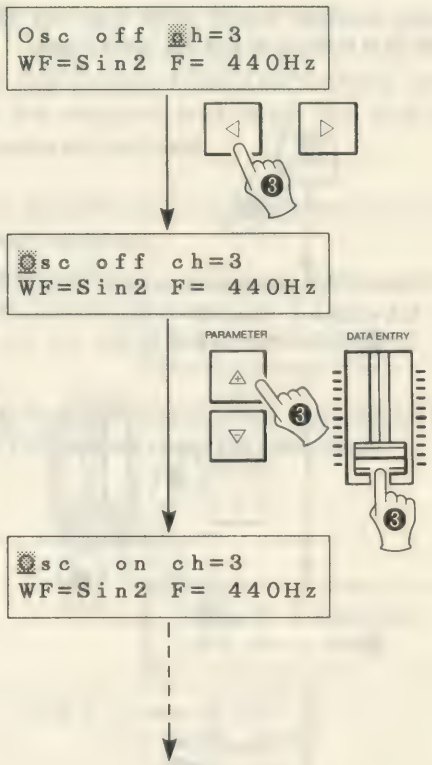
OSCILLATOR

This utility function makes it possible to send an oscillator signal to any of the input channels. The oscillator waveform and frequency can be individually set for each input channel as follows:

WF=Sin1 (sine wave): F= 50Hz – 10kHz, 8 steps
WF=SIn2 (sine wave): F= 262Hz – 523Hz, 8 steps
WF=Saw (sawtooth wave): F= 262Hz – 523Hz, 8 steps
WF=Pink (pink noise)

1. Press the UTILITY button a few times until the OSC function appears.
2. Select the channel to which the oscillator signal is to be sent by moving the cursor to the "ch" parameter using the PARAMETER ▶ button and using the PARAMETER +/- buttons or DATA ENTRY slider to set the desired channel, or by pressing the appropriate channel SELECT button.
3. Use the PARAMETER ◀ button to select the OSC off/on parameter and press the PARAMETER + or - button to turn the oscillator for the selected channel ON or OFF.
4. Use the PARAMETER ◀ and ▶ buttons to select the WF (waveform) and F (frequency) parameters and set these as required using the PARAMETER + and - buttons.
5. Press any function button other than the UTILITY or PARAMETER buttons to exit the utility mode.





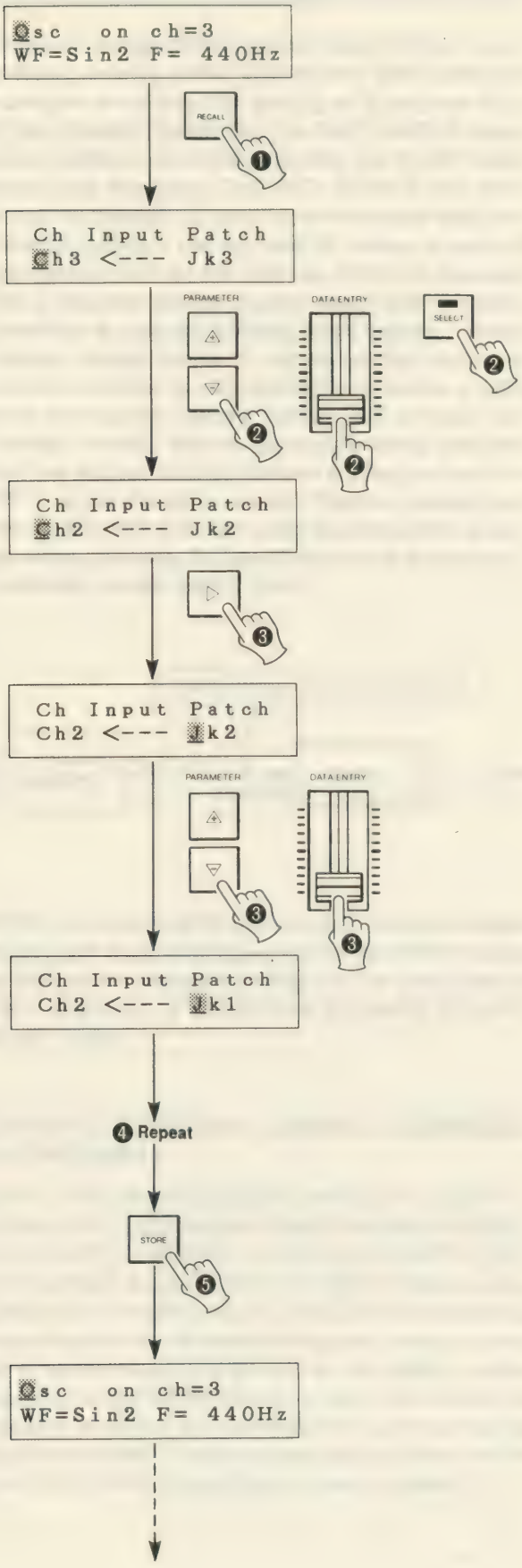
* *When the oscillator is turned ON for any channel the input signal to that channel is shut off and the equalizer settings for that channel are bypassed.*

INPUT PATCHING

While the oscillator mode display is active it is possible to patch (re-route) the signals appearing at the INPUT jacks to different channels. Patching cannot be performed to channels for which the oscillator is turned ON.

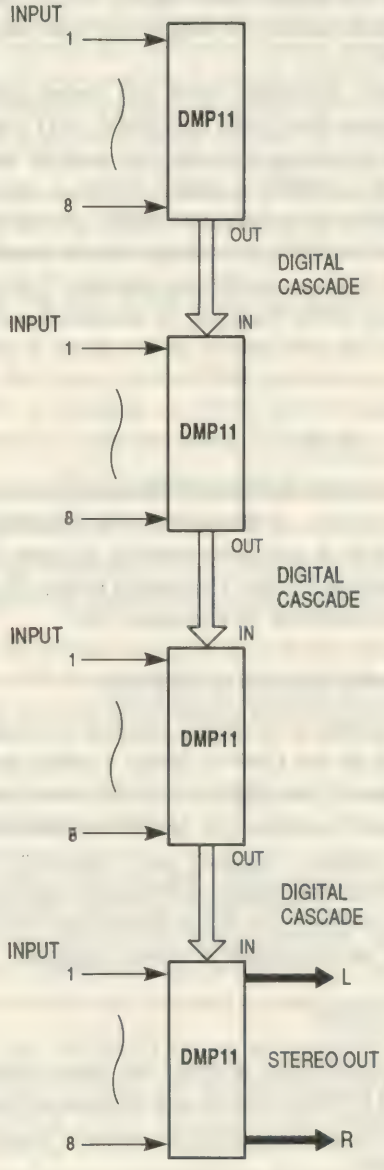
1. While the oscillator mode display is active, press the RECALL button to call the CH Input Patch function.
2. With the cursor located at the "CH" parameter use the PARAMETER +/- buttons or DATA ENTRY slider to select the channel to which an input jack is to be patched.
3. Move the cursor to the "Jk" parameter using the PARAMETER ▶ button and use the PARAMETER +/- buttons or DATA ENTRY slider to select the INPUT jack to be patched to the channel selected in step 2.
4. Repeat as required.
5. Press the STORE button to return to the normal oscillator mode display.

* *Input jacks 1 – 4 can only be patched to channels 1 – 4, and input jacks 5 – 8 can only be patched to channels 5 – 8.*



CASCADING

2 or more DMP11s can be "cascaded" to provide as many input channels as required. Cascading between DMP11 units is fully digital, so no signal loss occurs at the unit-to-unit connections. The CASCADE OUT terminal of the first DMP11 in the cascade chain is connected to the CASCADE IN terminal of the next DMP11, and so on. Output is taken from the STEREO OUT terminals of the last DMP11 in the chain.
The CASCADE IN connector can also be used to receive a digital signal for effect processing within the DMP11 as described in "CASCADE MODE CONTROL, below.



* 8-pin DIN connector cables must be used for all cascade connections.

CASCADE MODE CONTROL

The last utility function accessed by the UTILITY button contains a number of parameters pertaining to cascade operation. The individual parameters are selected using the PARAMETER ◀ and ▶ buttons, and the parameter settings are changed using the PARAMETER + and - buttons or DATA ENTRY slider.

Cascade: Master or Slave

When this parameter is set to Master, the cascade pad, stereo fader, stereo ON/OFF status and foot volume settings are transmitted to the CASCADE OUT connector. This means that the stereo fader setting of this DMP11 will affect the overall level of the output from the cascaded chain of DMP11s.

When set to Slave, the stereo fader and stereo ON/OFF status are not transmitted to the CASCADE OUT connector. In this mode the stereo fader can be used for "group" level control of this DMP11's output within a cascaded chain. If all DMP11s in a cascaded chain are set to the Slave mode, the Foot Volume control can be used as a master fader. It is also possible to use the "D.Entry & F.Vol" exchange utility function to assign the DATA ENTRY slider of the last DMP11 in the chain to master fader operation.

Pad (dB): =6.0 dB – -72 dB

This parameter sets the CASCADE IN input pad attenuation to a level between =6 dB and -72 dB, allowing optimum matching with a preceding DMP11 or other digital device in the cascaded chain. The setting below -72 dB is "off," turning the CASCADE IN connector OFF.

Eff1 In: Send1, Send 2, Cas.Lch or Cas.Rch

This parameter (Effect 1 in) allows patching a number of alternative inputs to the DMP11 SEND 1 effect system. When set to "Send1," the DMP11 is in the normal mode. A setting of "Send2" patches the SEND 2 controls to the SEND 1 effect system. "Cas.Lch" and "Cas.Rch" patch the left- or right-channel digital CASCADE input to the effect 1 system, allowing the digital output from an external source to be fed to the DMP11 effect 1 system.

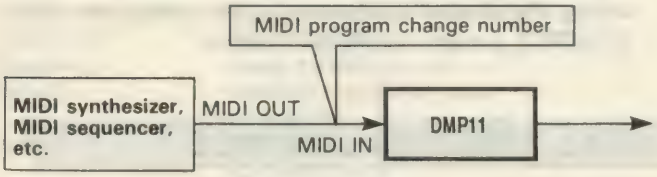
Ext.Snd: Send1 or Send2

This parameter determines whether the signal delivered to the rear-panel EFFECT SEND jack is derived from the SEND 1 or SEND 2 effect system. Select "Send1" or Send2" as required.

SECTION 2: MIDI CONTROL

MIDI SCENE CHANGES

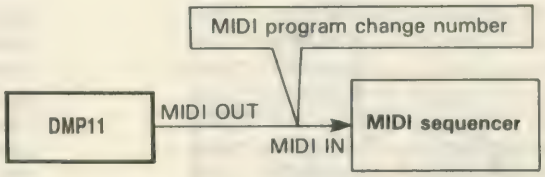
It is possible to change DMP11 scenes (select different memory numbers) remotely under MIDI control. MIDI controlled scene changes are effected by sending an appropriate MIDI PROGRAM CHANGE NUMBER to the DMP11 MIDI IN terminal (for more detailed information on MIDI and the MIDI data categories, see Yamaha's "THE MIDI BOOK"). Any MIDI device that can transmit, or record and re- transmit MIDI program change numbers can be used to change scenes. A MIDI synthesizer such as the Yamaha DX7II, for example, transmits a program change number every time one of its voice selectors is pressed. Pressing voice selector 1 transmits program change number 1, and so on, right up to program change number 64. An alternative is to use a MIDI sequencer such as the Yamaha QX3 or QX5 to record program change numbers with the appropriate timing, and then play back the program change numbers to change scenes on the DMP11 at just the right moment. Program numbers can be transmitted to and recorded in the sequencer from a synthesizer simply pressing the appropriate voice selector buttons, or directly from the DMP11 itself.



* *NOTE: Appropriate MIDI channel and program change assignments must be programmed in the DMP11 before the MIDI scene change capability can be used. refer to "MIDI CHANNEL & PROGRAM CHANGE ASSIGNMENT," below.*

RECORDING PROGRAM CHANGE NUMBERS FROM THE DMP11

Each time a new memory location is selected on the DMP11, the corresponding MIDI program change number is transmitted via the DMP11's MIDI OUT terminal. If the DMP11 MIDI OUTPUT terminal is connected to the MIDI IN terminal of a MIDI sequence recorder, all you have to do is start the sequence recorder in the record mode and change scenes (select different memory locations) on the DMP11 at the appropriate times. When you play back the sequence recorder (the sequence recorder MIDI OUT terminal must be connected to the DMP11 MIDI IN terminal) the scenes will be selected on the DMP11 exactly as they were recorded.



MIDI CHANNEL & PROGRAM CHANGE ASSIGNMENT

The DMP11 has 4 MIDI CONTROL "BANKS," each of which can be set to receive on a different MIDI channel and can be programmed with a completely different set of program change assignments. Program change assignments simply "pair up" specific MIDI program change numbers with specific memory location numbers on the DMP11, so that when a given memory number is selected on the DMP11 the assigned program change number is transmitted via MIDI OUT, and when a program change number is received via MIDI IN, the memory number to which it is assigned is selected. Note that the DMP11 can be set to receive on any or all MIDI channels, but transmits only on channel 1.

❶ Press the MIDI button to select the MIDI CONTROL function.

❷ With the cursor on the BANK parameter, use the PARAMETER +/- buttons or DATA ENTRY slider to select the bank to be programmed (A, B, C or D).

❸ Press the PARAMETER ▶ button to move the cursor to the "ch" parameter (channel).

❹ Use the PARAMETER +/- buttons or DATA ENTRY slider to select the desired MIDI receive channel (1 – 16).

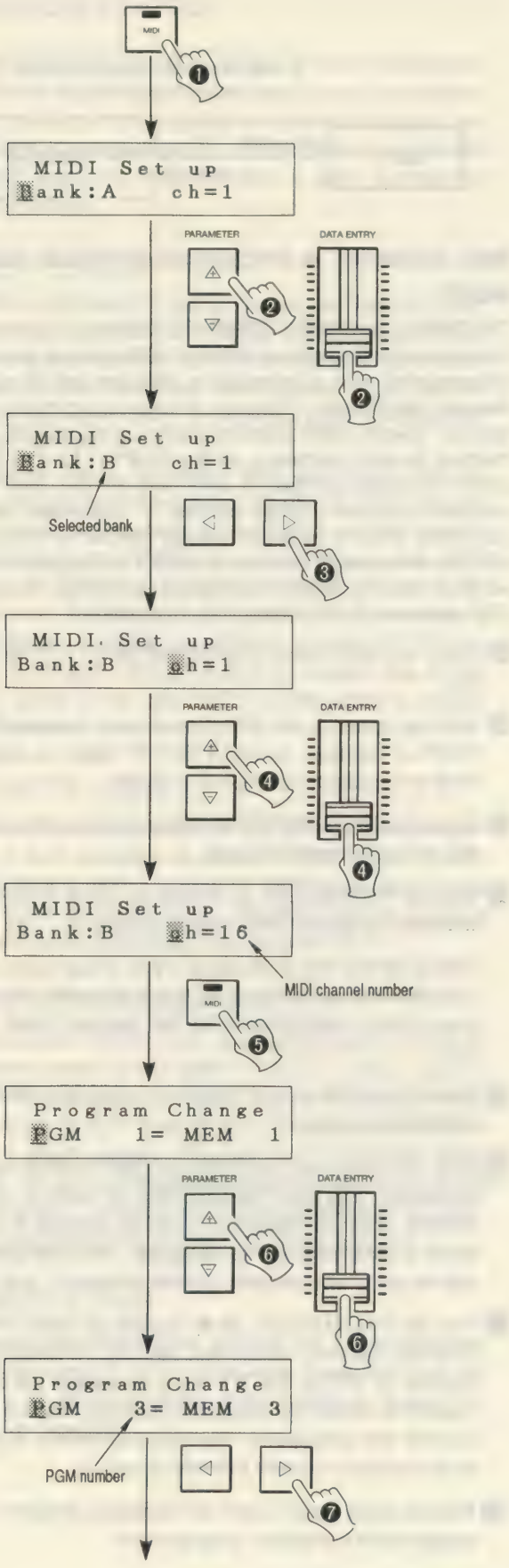
* *This is all that has to be done if you simply want to set a new MIDI receive channel for a specific bank. To set program change assignments for the selected bank, continue:*

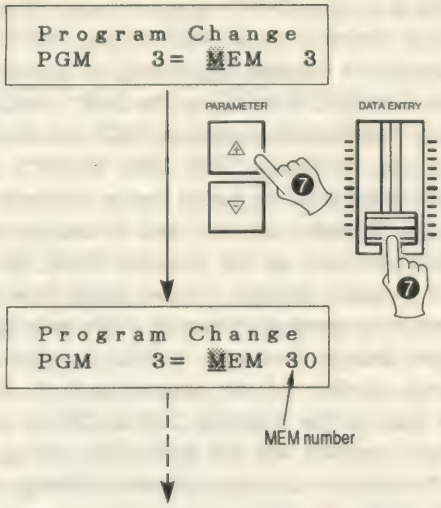
❺ Press the MIDI button again to select the MIDI PGM CHANGE function.

❻ With the cursor on the PGM (program change number), parameter, use the PARAMETER +/- buttons or DATA ENTRY slider to select the program change number to which a parameter will be assigned. The PGM parameter can be set to any program number between 1 and 128.

❼ Use the PARAMETER ◀ ▶ buttons to select the MEM (memory number) parameter, and the PARAMETER +/- buttons or DATA ENTRY slider to select the memory number to which the previously selected program change number will correspond. The MEM parameter can be set to any memory number between 0 and 96.

❽ Repeat steps 6 and 7 until all necessary program change assignments have been programmed.

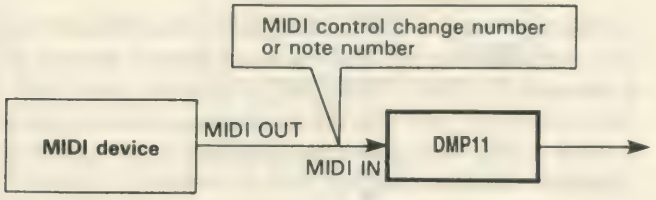




* *Remember that each MIDI CONTROL BANK (A, B, C and D) can be programmed with a completely different receive channel and set of program change assignments. Once the required number of banks have been programmed, all you need to do is select the bank containing the desired assignments after calling the MIDI CONTROL function via the MIDI button.*

REAL-TIME MIDI CONTROL

Real time control of all DMP11 parameters can be carried out remotely via MIDI, using MIDI CONTROL CHANGE data (for more detailed information on MIDI and the MIDI data categories, see Yamaha's "THE MIDI BOOK"). Each DMP11 parameter has a parameter name (see DMP11 PARAMETER CHART, below), and these may be individually assigned to any MIDI control change number. Since MIDI control change numbers have a value associated with them, they can be used to both select and set variable parameters such as fader settings, EQ frequency, reverb time, etc. While it is possible to transmit the appropriate real-time parameter control data to the DMP11 from a computer fitted with a MIDI interface or any other appropriate MIDI device, it is much more practical and convenient to simply record the data from the DMP11 on a MIDI sequence recorder. When the DMP11 controls are operated or parameters changed, the corresponding MIDI control change data is transmitted via the DMP11 MIDI OUT terminal. This data can be recorded on a MIDI sequence recorder such as the Yamaha QX3 in the same way as performance data from a MIDI synthesizer can – in real time. When the sequence recording is played back, the entire mix, as "performed" while the sequence was recorded, will be recreated in fine detail. It is also possible to take advantage of the sequence recorder's overdubbing capabilities to create extremely complex mixdown sequences. Simply overdub the various mix operations and parameter changes as you would do with different musical parts when recording from a synthesizer.



* *If the LED dot to the right of the first digit in the LED MEMORY number display lights during reception of MIDI data, this indicates a MIDI RECEIVE ERROR.*

DMP11 PARAMETER CHART

PARAMETER NAME	FUNCTION
C1on/off — C8on/off:	INPUT [SOLO] ON/OFF (CHANNELS 1 — 8)
Phase1 — 4:	PHASE (CHANNELS 1 — 4)
Phase5 — 8:	PHASE (CHANNELS 5 — 8)
Pr/Pst1L:	PRE/POST FOR EFFECT SEND 1 (CHANNELS 1 — 4)
Pr/Pst1H:	PRE/POST FOR EFFECT SEND 1 (CHANNELS 5 — 8)
Pr/Pst2L:	PRE/POST FOR EFFECT SEND 2 (CHANNELS 1 — 4)
Pr/Pst2H:	PRE/POST FOR EFFECT SEND 2 (CHANNELS 5 — 8)
Panpot 1 — Panpot 8:	PAN (CHANNELS 1 —8)
l.fader1 — l.fader8:	FADER (CHANNELS 1 — 8)
S1fader1 — S1fader8:	EFFECT SEND LEVEL, SEND 1 (CHANNELS 1 — 8)
S2fader1 — S2fader8:	EFFECT SEND LEVEL, SEND 2 (CHANNELS 1 — 8)
Lo frq 1 — Lo frq 8:	EQ, LOW, FREQ (CHANNELS 1 — 8)
Lo gain1 — Lo gain8:	EQ, LOW, GAIN (CHANNELS 1 — 8)
Lo Q 1 — Lo Q 8:	EQ, LOW, Q (CHANNELS 1 — 8)
Lo typeL:	EQ, LOW, SHLV/PEAK/DYN (CHANNELS 1 — 4)
Lo typeH:	EQ, LOW, SHLV/PEAK/DYN (CHANNELS 5 — 8)
Hi frq 1 — Hi frq 8:	EQ, HI, FREQ (CHANNELS 1 — 8)
Hi gain1 — Hi gain8:	EQ, HI, GAIN (CHANNELS 1 — 8)
Hi Q 1 — Hi Q 8:	EQ, HI, Q (CHANNELS 1 — 8)
Hi typeL:	EQ, HI, SHLV/PEAK/DYN (CHANNELS 1— 4)
Hi typeH:	EQ, HI, SHLV/PEAK/DYN (CHANNELS 5 — 8)
R1 fader:	EFFECT 1 RETURN LEVEL
R2 fader:	EFFECT 2 RETURN LEVEL
ST fader:	STEREO OUT LEVEL
EQ1on/of — EQ8on/of:	EQ ON/OFF (CHANNELS 1 — 8)
Solo:	SOLO MODE ON/OFF
STon/off:	STEREO ON/OFF
R1on/off:	EFFECT RETURN 1 [SOLO] ON/OFF
R2on/off:	EFFECT RETURN 2 [SOLO] ON/OFF
Ef1 typ:	EFFECT 1 PARAMETER, TYPE
Ef1prm1R:	EFFECT 1 PARAMETER 1, PARAMETER RANGE
Ef1prm1V:	EFFECT 1 PARAMETER 1, PARAMETER VALUE
Ef1prm2R:	EFFECT 1 PARAMETER 2, PARAMETER RANGE
Ef1prm2V:	EFFECT 1 PARAMETER 2, PARAMETER VALUE
Ef1prm3R:	EFFECT 1 PARAMETER 3, PARAMETER RANGE
Ef1prm3V:	EFFECT 1 PARAMETER 3, PARAMETER VALUE
Ef1prm4R:	EFFECT 1 PARAMETER 4, PARAMETER RANGE
Ef1prm4V:	EFFECT 1 PARAMETER 4, PARAMETER VALUE
Ef1prm5R:	EFFECT 1 PARAMETER 5, PARAMETER RANGE
Ef1prm5V:	EFFECT 1 PARAMETER 5, PARAMETER VALUE
Ef1prm6R:	EFFECT 1 PARAMETER 6, PARAMETER RANGE
Ef1prm6V:	EFFECT 1 PARAMETER 6, PARAMETER VALUE
Ef1prm7R:	EFFECT 1 PARAMETER 7, PARAMETER RANGE
Ef1prm7V:	EFFECT 1 PARAMETER 7, PARAMETER VALUE
Ef1prm8R:	EFFECT 1 PARAMETER 8, PARAMETER RANGE
Ef1prm8V:	EFFECT 1 PARAMETER 8, PARAMETER VALUE
Eff2 type:	EFFECT 2 PARAMETER, TYPE
Ef2prm1R:	EFFECT 2 PARAMETER 1, PARAMETER RANGE
Ef2prm1V:	EFFECT 2 PARAMETER 1, PARAMETER VALUE
Ef2prm2R:	EFFECT 2 PARAMETER 2, PARAMETER RANGE
Ef2prm2V:	EFFECT 2 PARAMETER 2, PARAMETER VALUE
Ef2prm3R:	EFFECT 2 PARAMETER 3, PARAMETER RANGE
Ef2prm3V:	EFFECT 2 PARAMETER 3, PARAMETER VALUE
Ef2prm4R:	EFFECT 2 PARAMETER 4, PARAMETER RANGE
Ef2prm4V:	EFFECT 2 PARAMETER 4, PARAMETER VALUE
Ef2prm5R:	EFFECT 2 PARAMETER 5, PARAMETER RANGE
Ef2prm5V:	EFFECT 2 PARAMETER 5, PARAMETER VALUE
FadeTime:	FADE TIME
Rt.Bal 1:	EFFECT RETURN BALANCE, SEND 1
Rt.Bal 2:	EFFECT RETURN BALANCE, SEND 2
Dyna L 1 — Dyna L 8:	LOW EQ SWEEP ON/OFF
Dyna H 1 — Dyna H 8:	HIGH EQ SWEEP ON/OFF
Cascade:	CASCADE INPUT LEVEL
Foot Vol:	FOOT VOLUME LEVEL

CONTROL CHANGE ASSIGNMENT

The DMP11 has a total of 167 MIDI-controllable parameters. The range of available MIDI control change numbers is 0 – 127. To allow the DMP11 to transmit and receive data for all of its parameters, the control change number/parameter assignments can be divided over two MIDI channels. This also minimizes data delays that might be caused by transmitting a large number of parameters on a single channel. The first MIDI channel used is the one you programmed as described in "MIDI CHANNEL & PROGRAM CHANGE ASSIGNMENT" on page 30. The second MIDI channel is the programmed channel + 1. For example, if the DMP11 is programmed to transmit and receive on MIDI channel 1, the parameters may be assigned for transmission on channels 1 (the "Base Channel) and 2 (the "Next Channel).

❶ Press the MIDI button a few times to call the "Base *ch Assign" or function. The "*" in the display will appear as the currently programmed MIDI channel.

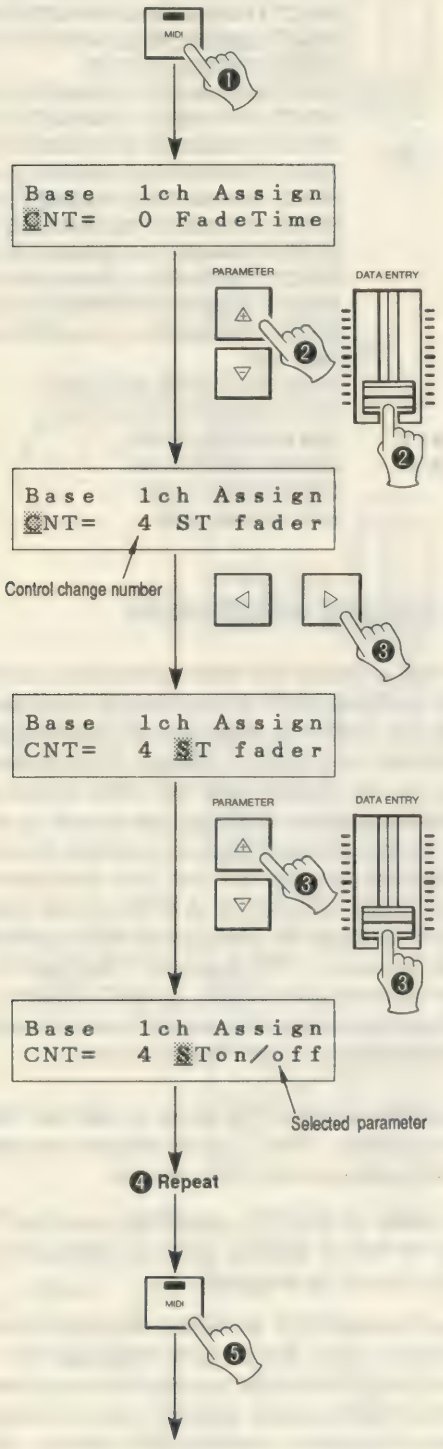
❷ With the cursor on the CNT= parameter, use the PARAMETER +/- or DATA ENTRY slider to select the control change number to be assigned.

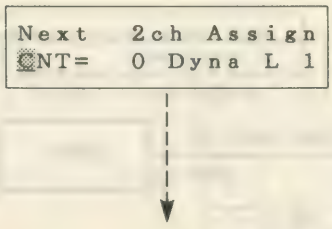
❸ Press the PARAMETER ▶ button to move the cursor to the parameter name, and use the PARAMETER +/- buttons or DATA ENTRY slider to select the parameter to be assigned to the previously selected control change number (refer to the DMP11 PARAMETER CHART, above).

❹ Repeat steps 2 and 3 until the required number of assignments have been made for the base channel.

❺ Press the MIDI button again to call the "Next *ch Assign" function. The "*" in the display will appear as the base channel +1.

❻ Carry out steps 2, 3 and 4 above to assign all required parameters for the next channel.





* *The initial factory-programmed program change and control change number assignments can be restored by turning the DMP11 OFF, then turning the power back ON while holding both the FADER FLIP and MIDI buttons. Another way to do this is described in "Loading the Preset Data" on page 35.*

CONTROL CHANGE & PROGRAM CHANGE NUMBER SEND/RECEIVE SELECTION

This function permits independently enabling or disabling reception and transmission of control change and program change number data.

❶ Press the MIDI button a few times until the following display appears:
On the top row, "CNTL (R)" corresponds to control change receive, "CNTL (S)" corresponds to control change send. On the lower row "PGMC (R)" is program change number receive and "PGMC (S)" is program change number send.

```
CNTL  (R) 1  (S) 1
PGMC  (R) 1  (S) 1
```

❷ Use the PARAMETER ◀ ▶ buttons to place the cursor over the desired send or receive parameter.

❸ Use the PARAMETER +/- buttons or DATA ENTRY slider to set the digit immediately following the (R) or (S) parameter to "0" (disable) or "1" (enable).
If you will be sending and receiving program change data but not control change number data, for example, then the display should be set as follows:

```
CNTL  (R) 0  (S) 0
PGMC  (R) 1  (S) 1
```

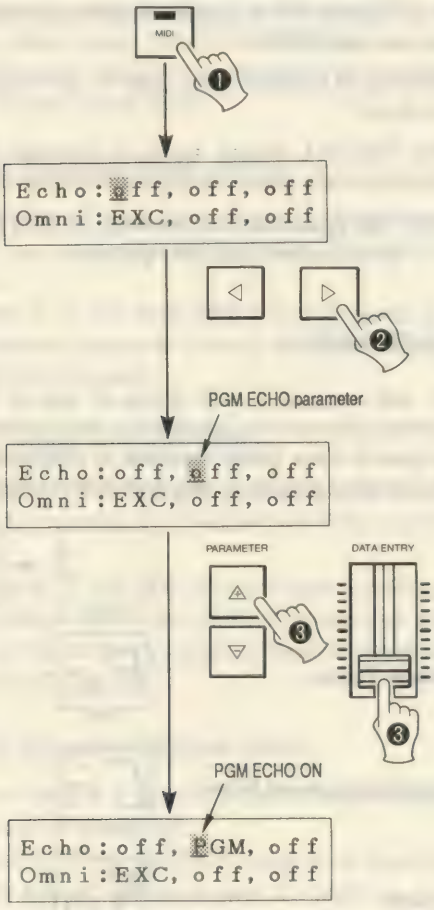
MIDI ECHO BACK

When the MIDI Echo CLK (clock), PGM (program change) or CNT (control change) function is ON, the corresponding type of MIDI data received at the DMP11 MIDI IN terminal is immediately re-transmitted via the MIDI OUT terminal in addition to MIDI data internally generated by the DMP11. Refer to "CONTROL CHANGE & PROGRAM CHANGE NUMBER SEND/RECEIVE SELECTION," above, for details about transmission of internally generated data.

❶ Press the MIDI button a few times to select the MIDI "Echo" function. The three parameters to the right of "Echo:" on the top line of the display correspond to CLK (clock), PGM (program change) and CNT (control change) data in order from left to right.

❷ Select the desired parameter using the PARAMETER ◄ and ► buttons.

❸ Turn the selected parameter ON (CLK, PGM or CNT) or "off" using the PARAMETER + or - button. Each press on the + or - button alternately turns the selected parameter on and off.



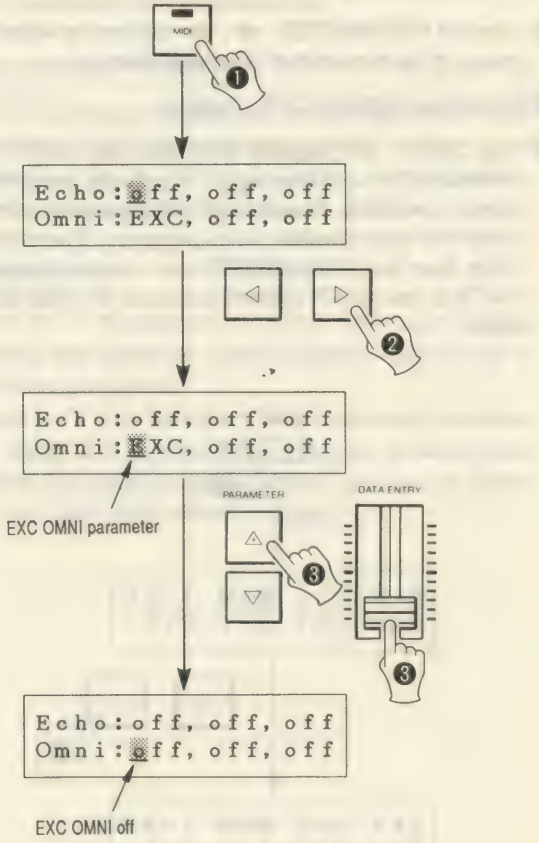
OMNI RECEIVE ASSIGNMENT

Regardless of the main MIDI Base Channel setting, it is possible to assign EXC (system exclusive), PGM (program change) or CNT (control change) data for omni-mode reception (i.e. reception is possible on all 16 MIDI channels).

❶ Press the MIDI button a few times to select the "Omni" function (this is on the bottom line of the "Echo" function display, described above). The three parameters to the right of "Omni:" on the top line of the display correspond to EXC (system exclusive), PGM (program change) or CNT (control change) data in order from left to right.

❷ Select the desired parameter using the PARAMETER ◄ and ► buttons.

❸ Turn the selected parameter ON (EXC, PGM or CNT) or "off" using the PARAMETER + or - button. Each press on the + or - button alternately turns the selected parameter on and off.



BULK OUT

The BULK OUT function permits initiating a bulk dump of any of the following four data groups via the MIDI OUT terminal:

1. MEM1-96: The contents of internal memories 1 through 96.
2. PGM: The four program change assignment tables.
3. CNTL: The control change assignment table (both channels).
4. SET: The system setup parameters.
5. EFF: The effect preset (default) data.

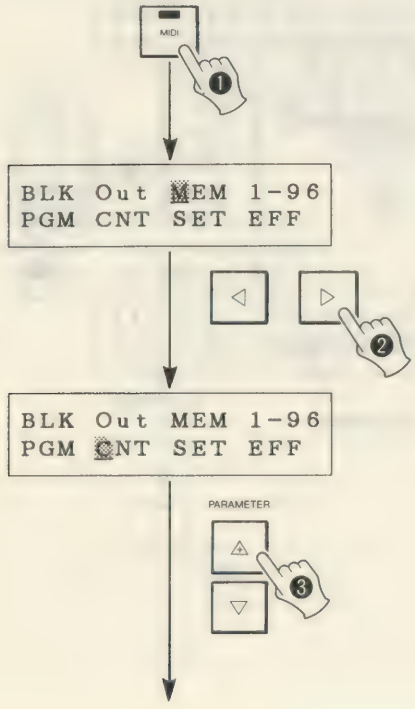
This allows the aforesaid data to be conveniently stored on a MIDI Data Recorder such as the Yamaha MDF1 MIDI Data Filer or the internal micro floppy disk drive of the DX7IIFD Digital Programmable Algorithm Synthesizer. The data can also be transferred to a second DMP11 using the BULK OUT function.

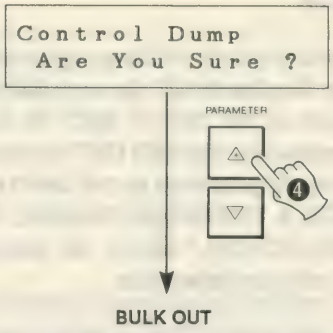
❶ Press the MIDI button a few times until the BULK OUT function appears.

❷ Use the PARAMETER ◄ / ► buttons to select the data group to be transmitted (see note below).

❸ Press the PARAMETER + button.

❹ The DMP11 will respond with "Are you sure?" Press the PARAMETER + button again to actually execute the bulk dump operation. "Executing" will appear on the display while the data transfer is in progress. Press any button other than the PARAMETER + or - button in response to the "Are you sure?" prompt to cancel the bulk dump operation.





* *If you select the MEM parameter, it is possible to use the DATA ENTRY slider to select a specific group of memory locations to be transmitted.*

* *Memory bulk dump operations can be terminated at any time by pressing either the PARAMETER ◄ or ► button.*

Loading the Preset Data

The preset MEM, PGM, CNTL, SET or EFF data can be loaded into the internal memory in this mode.

❶ Position the cursor at the parameter corresponding to the data group to be loaded.

❷ Press the RECALL button. The DMP11 will respond with "Are You Sure?"

❸ Press the RECALL button again to actually load the selected preset data group, or any other button to cancel.

* *CAUTION: This operation will overwrite all data previously in the selected data group !*

Bulk Dump Reception

The DMP11 will receive a bulk dump of any of the data groups described above from an external device while in any mode. The type of data being received is displayed on the LED memory number display during bulk dump reception:

Memory: 1 → 96 (MEMORY)

Program Change Tables: PC (MEMORY)

Control Change Assignment Table: Cn (MEMORY)

MIDI Set Up Data: Su (MEMORY)

Effect Preset Data: EF (MEMORY)

MIDI SYSTEM SETUP

7 bits of the 12th byte of the DMP11's MIDI SETUP data block function as system mode switches. These are set when the DMP11 receives a MIDI setup bulk dump from an external device. For convenience, the DMP11 has also been provided with a function that provides direct access to these bit "switches."

❶ Use the UTILITY button to call the "D.Entry & F.Vol" function, then press the PARAMETER ▶ button. The following display should appear:

```
System Mode SW
MSB 00000000 LSB
```

❷ The 8 zeroes and/or ones represent the 8 bits in the system mode byte. "MSB" is the most significant bit (bit 7) and "LSB" is the least significant bit (bit 0). The bits are thus numbered 7 to 0, from left to right. Bit 7 is not used, and cannot be set.

❸ Bits 6 through 0 can be set by placing the cursor under the desired bit position using the PARAMETER ◀ and ▶ buttons, then using the PARAMETER + or - button to switch the bit to "1" or "0." A setting of "0" means the bit is off, "1" means the bit is on.

Bit 0: Fader Triggered Fader Status

When set to "0" the fader status display mode can be entered by pressing the FADER STATUS or FADER FLIP buttons.
When set to "1" the fader status display mode is automatically entered whenever a fader is moved rapidly (except in the UTILITY mode).

Bit 1: MIDI Triggered Fader Status

When set to "0" the fader status display mode can be entered by pressing the FADER STATUS or FADER FLIP buttons.
When set to "1" the fader status display mode is automatically entered whenever a MIDI command to change the setting of the currently selected fader is received (except in the UTILITY mode).

Bit 2: Fader Triggered Channel Select

When set to "0" a SELECT button must be pressed in order to select a channel.
When set to "1" the SELECT button for a channel is automatically turned ON whenever it's fader is moved and activated (except in the UTILITY mode).

Bit 3: Minimum Fader Enable

When set to "0" the faders become active when moved to the position matching the memorized fader setting, or when lowered all the way.
When set to "1" the faders only become active when moved to the position matching the memorized fader setting.

Bit 4: Memory Store & Bank Change Request/PGM Table Request

When set to "0" a memory store request is not transmitted via MIDI OUT when a memory store operation is performed, and a bank change request is not transmitted when a bank change operation is performed. A program change table request is performed for the currently selected bank.
When set to "1" a memory store request is transmitted via MIDI OUT when a memory store operation is performed, and a bank change request is transmitted when a bank change operation is performed. A program change request is performed for all four banks.

Bit 5: Active Sensing Transmit

MIDI active sensing message are transmitted when set to "0", and are not transmitted when set to "1".

** Active sensing reception is active at all times.*

Bit 6: Fade Time

When set to "0" the programmed fade time value applies when levels are changed via MIDI control, foot volume or panel control operations.
When set to "1" the fade time is 0.1 seconds for panel-control input and stereo level changes except effect return, and the programmed fade time applies only to foot volume and effect return level changes.

ERROR MESSAGES

POWER-ON ERROR MESSAGES

When the DMP11 is initially turned ON, it automatically performs a check of the internal ROM and RAM. If a problem is detected, one of the following message will be displayed:

ROM ERROR

CPU RAM ERROR

MAIN RAM ERROR

If any of these error messages appears when the DMP11 is turned ON, make a note of the error message and have the DMP11 checked by qualified Yamaha service personnel

MIDI RECEIVE ERRORS

If an error occurs during MIDI reception, one of the following messages will appear on the MEMORY LED display:

ACIA overrun or framing error. Could be a problem with the transmitting device or MIDI cable.

Receive buffer full. Too much MIDI data has been received at one time.

A MIDI RESET message (0FFH) has been received and the receive buffer has been cleared.

Memory bulk data was received but the memory protect function was ON. The data was ignored.

Bulk data was received but a checksum error was detected.

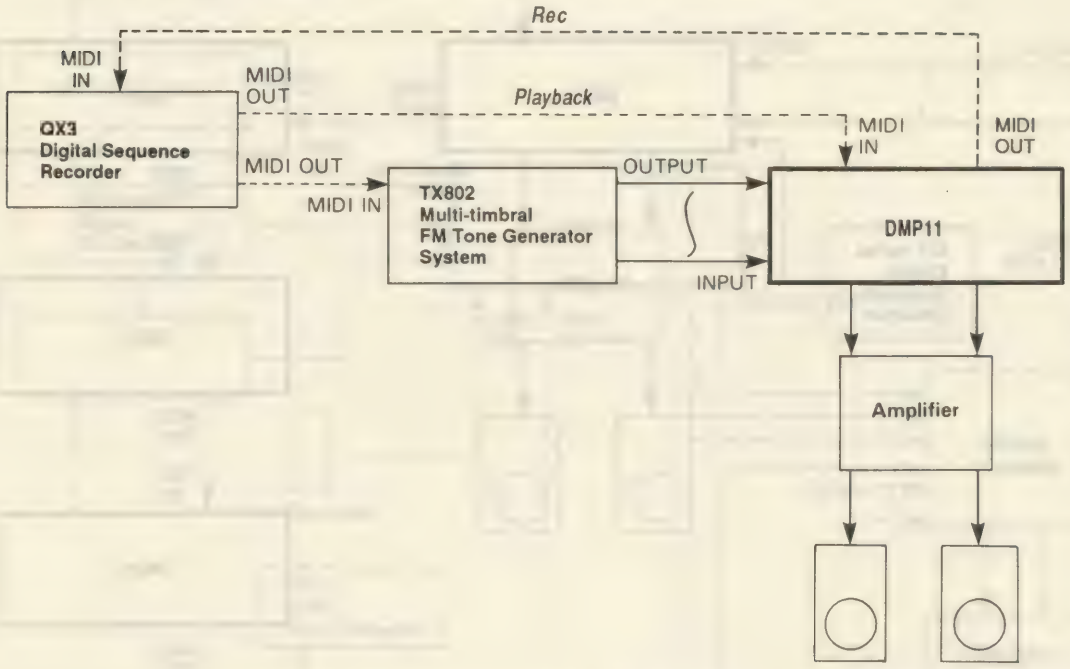
An attempt has been made to write to memory location number "0".

SECTION 3: SYSTEM EXAMPLES

Although the DMP11 has myriad uses, limited only by your imagination, we feel that it is appropriate to offer a few sample system applications to help fire your own imagination.

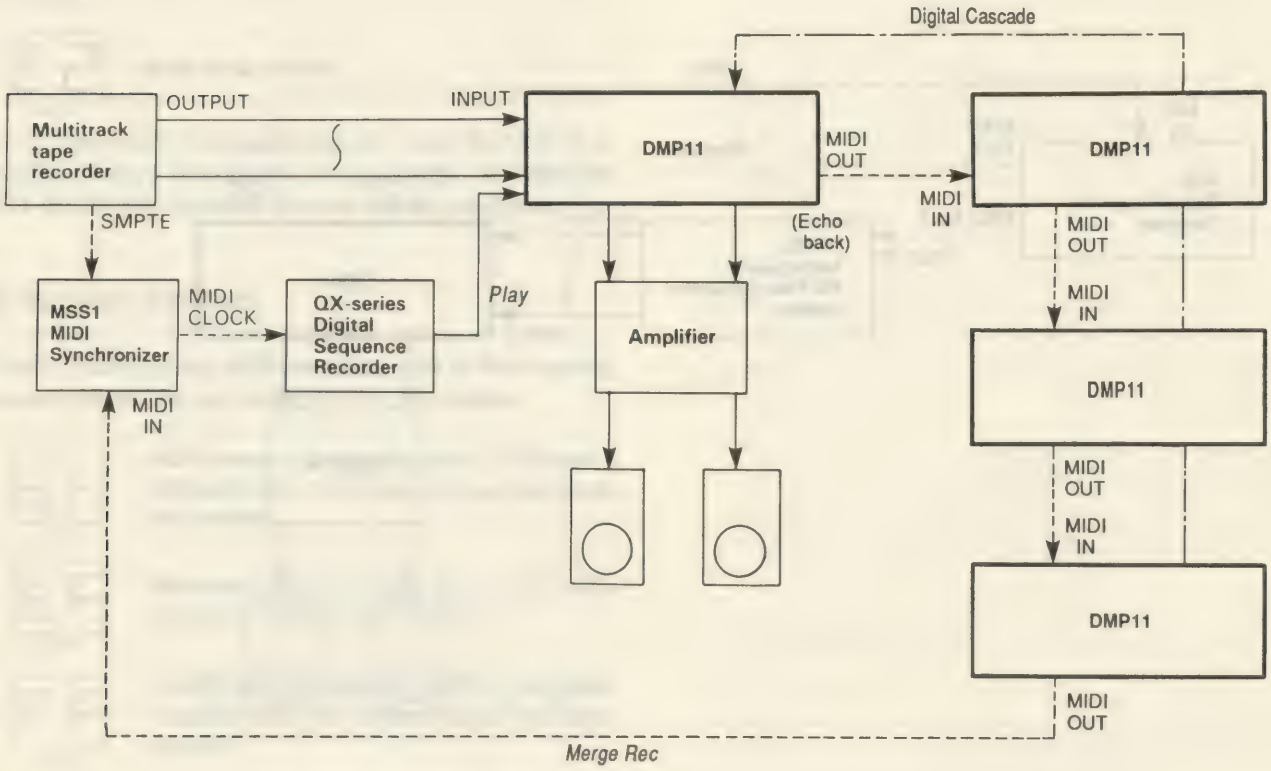
A Sequence System

In this system, the DMP11 is used with a TX802 Multi-timbral FM Tone Generator System and QX3 Digital Sequence Recorder for fully automated mixdown and signal processing of sequence playback. One sequencer "track" is dedicated to control of the DMP11, while the others control the tone generator modules. The control data for the DMP11 may be scene changes controlled by transmission of MIDI program change numbers, or real-time mixdown data using MIDI control change numbers. While straight sequence playback can sound "flat" and lacking in dynamic variety, in a system like this the DMP11 adds a full range of variable top-quality digital effects as well as mixing functions that can be sequenced along with the tone generators to produce a professionally "finished" sound without using an inch of tape.



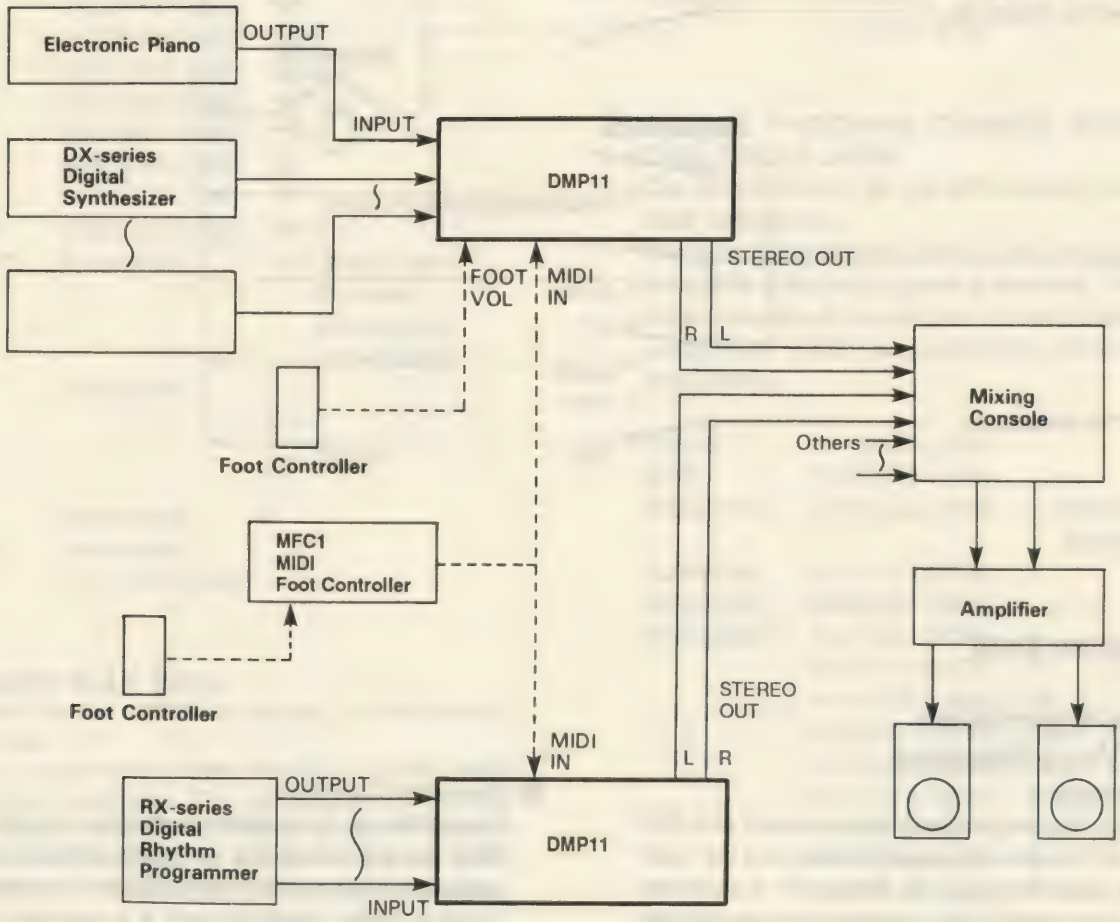
A Tape Sync System

In the system shown here, the source is a multitrack tape rather than sequencer and tone generator system. Virtually any system can be used to record a synchronization track on the multitrack tape — SMPTE, FSK, etc — as long as an appropriate sync-conversion unit such as the Yamaha MSS1 is available to convert between the sync signal and MIDI formats. The mixdown data for the DMP11 is recorded on a simple sequencer such as the QX7 or QX5. The mixdown data can be in the form of scene changes initiated by transmission of MIDI program change numbers and/or real-time control data using MIDI control change numbers. The mixdown data is recorded on the sequencer directly from the DMP11, and then the recorded sequence is played via the sync unit at the proper tempo to record the synchronization track on the multitrack tape. When the tape is played back, sequence playback is synchronized to the tape and the mixdown sequence for the source tracks is performed in precise detail.



A Live Performance System

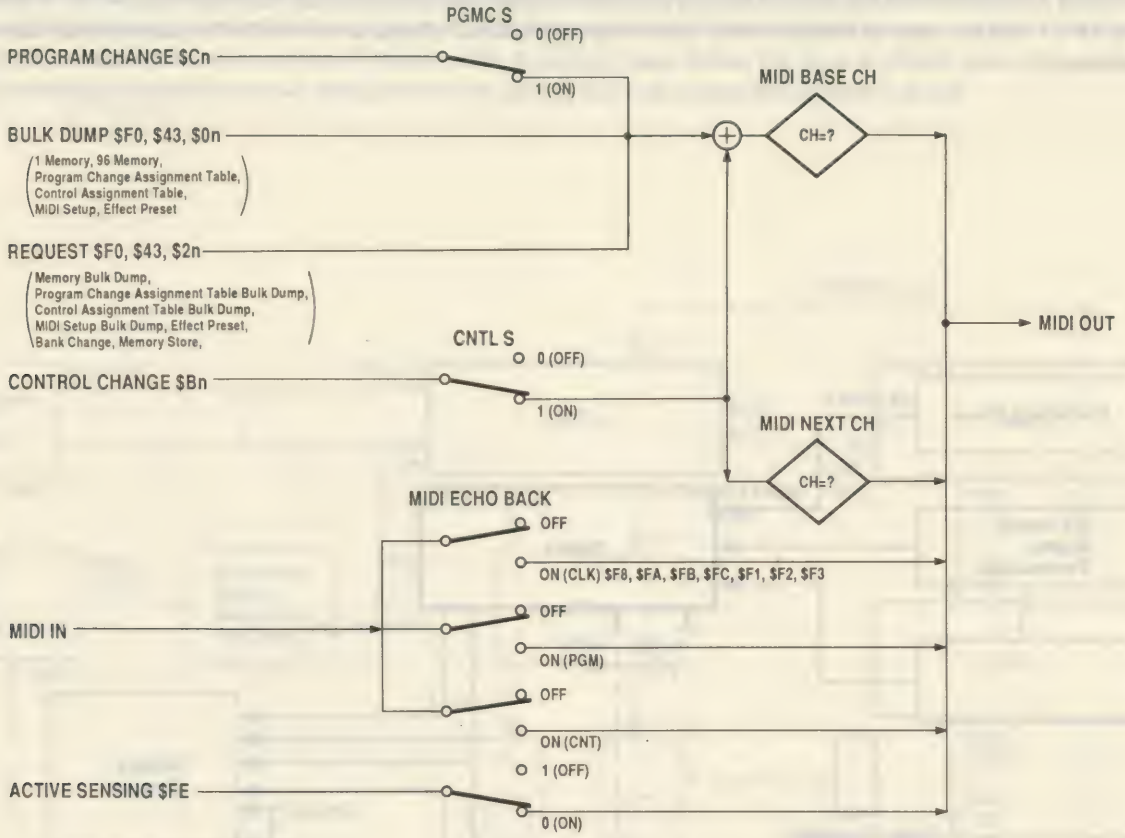
The DMP11 can be a tremendous advantage on stage as well as in the studio. In the system shown here a DMP11 is used to combine and add effects to the outputs from a multi-keyboard setup and RX-series Digital Rhythm Programmer. The DMP11's foot volume control capability is take advantage of to control the overall level of the entire system. An MFC1 MIDI Foot Controller is connected to the DMP11's MIDI IN terminal to provide even further foot control capability. The MFC1 can be programmed to transmit MIDI program change and control change data, making it possible to switch scenes simply by tapping a footswitch. A foot controller connected to the MFC1 can be used to independently control specific faders, effects or other DMP11 parameters, allowing extensive expressive control.



SECTION 4: MIDI DATA & SPECIFICATIONS

MIDI DATA FORMAT

1. Transmission Conditions



2. Transmission Data

2-1. Channel Information

1) Channel Voice Message

❶ Control Change

Transmitted on the programmed base channel (the MIDI channel set for the currently selected bank) and the "next" channel (the base channel + 1). Whenever a parameter change is performed, the control change number assigned to that parameter is transmitted. The control change/parameter assignment tables for the base and next channel apply to all banks.

STATUS	1011nnnn (BnH)	n= 0 (channel no. 1) – 15 (channel no. 16)
CONTROL NO.	0ccccccc	c= 0 (control no. 0) – 127 (control no. 127)
VALUE	0vvvvvvv	v= 0 (minimum value)– 127 (maximum value)

❷ Program Change

Transmitted on the programmed base channel only (the MIDI channel set for the currently selected bank). The program change number assigned to a memory location in the currently selected bank is transmitted whenever that memory location is selected and recalled.

STATUS	1100nnnn (CnH)	n= 0 (channel no. 1) – 15 (channel no. 16)
PROGRAM NO.	0ppppppp	p= 0 (program no. 0) – 96 (program no. 96)

2-2. System Information

1) System Exclusive Message

❶ 1 MEMORY BULK DATA

Can be transmitted on the MIDI channel set in the currently active bank.

The data is transmitted when a bulk dump request is received from external equipment. The transmitted data consists of the contents of the specified memory number.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000100 (04H)	
BYTE COUNT	01011010 (0AH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01001101 (4DH)	"M" or "A"
MEMORY NO.	0mmmmmmm	m= 0 (initialize data) – 96 (currently active program), 127 (edit buffer)
DATA	0ddddddd	— 512 bytes
DATA	0ddddddd	
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

❷ 96 MEMORY BULK DATA

Transmitted on the MIDI channel set in the currently selected bank.

The data is transmitted when the BULK DUMP MEM 1–96 function is activated. The contents of memory locations 1 through 96 are transmitted unless a different group of memory locations is specified using the DATA ENTRY slider. The BULK DUMP MEM group options are:

1 – 96	17 – 24	65 – 72
1 – 32	25 – 32	73 – 80
33 – 64	33 – 40	81 – 88
65 – 96	41 – 48	89 – 96
1 – 8	49 – 56	
9 – 16	57 – 64	

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000100 (04H)	— memory 1 (522 bytes)
CHECKSUM	0eeeeeee	
BYTE COUNT	00000100 (04H)	— memory 2 (522 bytes)
CHECKSUM	0eeeeeee	
BYTE COUNT	00000100 (04H)	— memory 96 (522 byte)
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

❸ 1 BANK PROGRAM CHANGE ASSIGNMENT TABLE BULK DATA

Can be transmitted on the MIDI channel set in the currently active bank.

The data is transmitted when a program change assignment table bulk dump request is received. The data transmitted consists of the program change assignment table (assignment of MIDI program change numbers to memory numbers.)

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000001 (01H)	
BYTE COUNT	01011010 (0AH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010100 (54H)	"P"
BANK NO.	0bbbbbbb	b: "A", "B", "C", "D" (ASCII)
DATA	0ddddddd	— 128 bytes
DATA	0ddddddd	
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

❹ 4 BANK PROGRAM CHANGE ASSIGNMENT TABLE BULK DATA

Can be transmitted on the MIDI channel set in the currently active bank.

The data is transmitted when the BULK DUMP PGMC function is activated. The program change assignment tables for all four banks are transmitted.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000001 (01H)	
	⋮	bank A
CHECKSUM	0eeeeeee	
BYTE COUNT	00000001 (01H)	
	⋮	bank B
CHECKSUM	0eeeeeee	
BYTE COUNT	00000001 (01H)	
	⋮	bank C
CHECKSUM	0eeeeeee	
BYTE COUNT	00000001 (01H)	
	⋮	bank D
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

❺ CONTROL ASSIGNMENT TABLE BULK DATA

Transmitted on the MIDI channel set in the currently selected bank.

The data is transmitted when a control assignment table bulk dump request is received, or when the BULK DUMP CNTL function is activated. The data consists of the control change assignment tables programmed for the base and next channels.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000010 (02H)	
BYTE COUNT	01011010 (0AH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01000010 (42H)	"B"
	00100000 (20H)	space
DATA	0ddddddd	
	⋮	256 bytes
DATA	0ddddddd	
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

❻ MIDI SETUP BULK DATA

Transmitted on the MIDI channel set in the currently selected bank.

The data is transmitted when a MIDI setup bulk dump request is received, or when the BULK DUMP SET function is activated. The data consists of the fade time settings, control enable settings, MIDI echo settings and others.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111100 (7CH)	
BYTE COUNT	00000000 (00H)	
BYTE COUNT	00010110 (16H)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010011 (53H)	"S"
	00100000 (20H)	space
DATA	0ddddddd	
	⋮	12 bytes
DATA	0ddddddd	
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

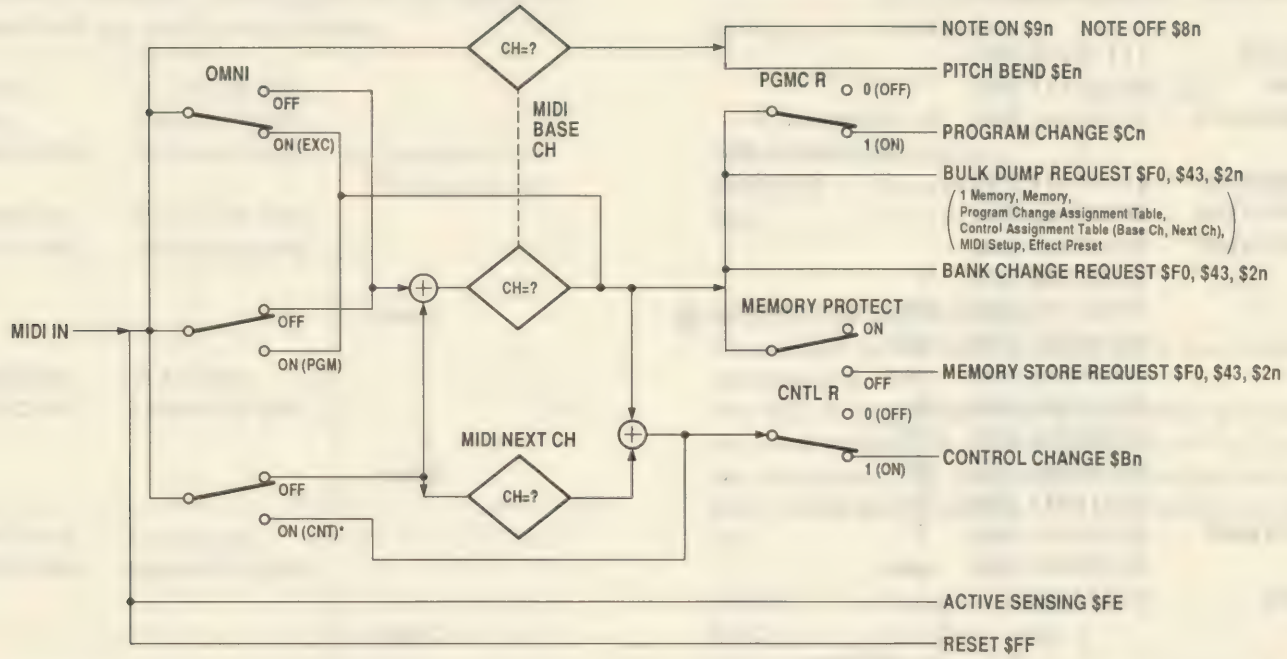
❼ EFFECT PRESET BULK DATA

Transmitted on the MIDI channel set in the currently selected bank.

The data is transmitted when the BULK DUMP EFF function is activated. The data consists of the preset values for all DMP11 effect parameters.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0000nnnn (0nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
BYTE COUNT	00000011 (03H)	
BYTE COUNT	00011010 (1AH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01000101 (45H)	"E"
	00100000 (20H)	space
DATA	0ddddddd	
	⋮	400 bytes
DATA	0ddddddd	
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

3. Reception Conditions



* If the base channel is set to an odd number and control change reception is set to the omni mode, control change/parameter assignments made for the base channel are received on the odd-numbered channels while control change/parameter assignments made for the next channel are received on the even-numbered channels. This situation is reversed if the base channel is set to an even number.

4. Reception Data

4-1. Channel Information

1) Channel Voice Message

❶ NOTE ON

Received on the MIDI channel set in the currently selected bank. Cannot be received in the omni mode.
Note numbers are only accepted when the DMP11 SEND 1 PITCH CHANGE A effect program is selected. The received note number determines the PITCH CHANGE A program's BASE KEY.

STATUS	1001nnnn (9nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
NOTE NO.	0kkkkkkk	k= 0 (C-2) – 127 (G8)
VELOCITY	0vvvvvvv	v= 0 (minimum value) – 127 (maximum value)

❷ NOTE OFF

Received on the MIDI channel set in the currently selected bank. Cannot be received in the omni mode.
This message is essential to signal the end of a NOTE ON message in the DMP11.

STATUS	1000nnnn (8nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
NOTE NO.	0kkkkkkk	k= 0 (C-2) – 127 (G8)
VELOCITY	0vvvvvvv	v= 0 (minimum value) – 127 (minimum value)

❸ CONTROL CHANGE

Received on the base channel (the MIDI channel programmed in the current bank) and the "next" channel (the base channel + 1). When omni-mode reception is specified and the base channel is set to an odd number, the "base channel" control change data is received on the odd-numbered channels and the "next channel" data is received on the even-numbered channels. This situation is reversed when the base channel is set to an even number. Received control change numbers affect the DMP11 parameters assigned in the control change assignment tables.

STATUS	1011nnnn (BnH)	n= 0 (channel no. 1) – 15 (channel no. 16)
CONTROL NO.	0ccccccc	c= 0 – 127
VALUE	0vvvvvvv	v= 0 (minimum value) – 127 (maximum value)

❹ PROGRAM CHANGE

Received on the MIDI channel set in the currently selected bank. Can also be received in the omni mode.
When received, the memory number is recalled that is assigned to the received program change number in the program change assignment table of the currently selected bank.

STATUS	1100nnnn (CnH)	n= 0 (channel no. 1) – 15 (channel no. 16)
PROGRAM NO.	0ppppppp	p= 0 (program no. 0) – 96 (program no. 96)

❺ PITCH BEND

Received on the MIDI channel set in the currently selected bank. Cannot be received in the omni mode.
Pitch bend data is only accepted when the DMP11 SEND 1 PITCH CHANGE A effect program is selected. Pitch bend data can be received for fine control of the PITCH CHANGE A effect program pitch

STATUS	1110nnnn (EnH)	n= 0 (channel no. 1) – 15 (channel no. 16)
VALUE (LSB)	0bbbbbbb	
VALUE (MSB)	0bbbbbbb	b= 0 (fine -64) – 127 (fine +63)

4-2. System Information

1) System Exclusive Message

❶ 1 MEMORY BULK DUMP REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received, a bulk dump of the specified memory is performed.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01001101 (4DH)	"M"
MEMORY NO.	0mmmmmmm	m= 0 (initialize data) – 96 (currently active program), 127 (edit buffer)
EOX	11110111 (F7H)	

❷ MEMORY BULK DUMP REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received, a bulk dump of the specified memory is performed.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01000001 (41H)	"A"
BULK TYPE	0000mmmm	m= 0 – 15*
EOX	11110111 (F7H)	

*m= 0	→ 1 – 96	6	→ 17 – 24	12	→ 65 – 72
1	→ 1 – 32	7	→ 25 – 32	13	→ 73 – 80
2	→ 33 – 64	8	→ 33 – 40	14	→ 81 – 88
3	→ 65 – 96	9	→ 41 – 48	15	→ 89 – 96
4	→ 1 – 8	10	→ 49 – 56		
5	→ 9 – 16	11	→ 57 – 64		

❸ PROGRAM CHANGE ASSIGNMENT TABLE BULK DUMP REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received the program change assignment table of the specified bank is bulk-dumped. The bulk dump data consists of the specified program change assignment table (assignment of MIDI program change numbers to memory numbers).

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010100 (54H)	"P"
BANK NO.	0bbbbbbb	b: "A", "B", "C", "D" (ASCII)
EOX	11110111 (F7H)	

❹ CONTROL ASSIGNMENT TABLE BULK DUMP REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received the control assignment table (assignment of MIDI control change numbers to DMP11 parameter numbers) is bulk-dumped.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01000010 (42H)	"B"
	00100000 (20H)	space
EOX	11110111 (F7H)	

❺ MIDI SETUP BULK DUMP REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received the fade time settings, control enable settings, MIDI echo settings, and others are bulk-dumped.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111100 (7CH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010011 (53H)	"S"
	00100000 (20H)	space
EOX	11110111 (F7H)	

❻ BANK CHANGE REQUEST

Can be received on the MIDI channel set in the currently active bank.
When received the specified bank is selected.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010101 (55H)	"U"
BANK NO.	0bbbbbbb	b: "A", "B", "C", "D" (ASCII)
EOX	11110111 (F7H)	

❼ MEMORY STORE REQUEST

Can be received on the MIDI channel set in the currently active bank.

When received the MEMORY STORE operation is performed to the currently selected memory location as long as the MEMORY PROTECT function is turned OFF.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010111 (57H)	"W"
	0mmmmmmm	m= 1 (program no.1)— 96 (program no. 96)
EOX	11110111 (F7H)	

❽ EFFECT PRESET DATA REQUEST

Can be received on the MIDI channel set in the currently active bank.

When received a bulk dump of the effect preset data is performed.

STATUS	11110000 (F0H)	
ID NO.	01000011 (43H)	
SUB-STATUS	0010nnnn (2nH)	n= 0 (channel no. 1) – 15 (channel no. 16)
FORMAT NO.	01111110 (7EH)	
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	space
	00100000 (20H)	space
	00111000 (38H)	"8"
	00110011 (33H)	"3"
	00111000 (38H)	"8"
	00110111 (37H)	"7"
DATA NAME	01010111 (57H)	"E"
	00100000 (20H)	space
EOX	11110111 (F7H)	

YAMAHA [Digital Mixing Processor] Date : 4/28,1988
Model DMP11 MIDI Implementation Chart Version : 1.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	1 - 16	1 - 16	memorized
Channel	Changed	1 - 16	1 - 16	
Mode	Default	x	OMNIoff/OMNIon	memorized
	Messages	x	x	
	Altered	**********	x	
Note Number		x	0 - 127	*1
	True voice	**********	x	
Velocity	Note ON	x	o v=1-127	
	Note OFF	x	x	
After Touch	Key's	x	x	
	Ch's	x	x	
Pitch Bender		x	o 64 cent	*2 7bit reso
Control Change	0 - 121	o	o	*3
	122 - 127	o	o	*3
Prog Change		o 0 - 127	o 0 - 127	*4
	True #	**********	0 - 96	
System Exclusive		o	o	Bulk dump
System Common	Song Pos	x	o	*5
	Song Sel	x	o	
	Tune	x	x	
System Real Time	Clock	x	o	*5
	Commands	x	o	
Aux	Local ON/OFF	x	x	
	All Notes OFF	x	x	
Mes- sages	Active Sense	o	o	
	Reset	x	o	

Notes: *1,2 Note ON and Pitch Bender are recognized only for pitch change. *3 Each parameter can be assigned to any Control Change and these assignment tables can be stored in memory. *4 For program 1-128, memory #0-#96 is selected. *5 These commands can be bypassed to OUT.

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

SPECIFICATIONS

Analog Section

Total Harmonic Distortion	Less than 0.015%, stereo out @ +17dB, 1 kHz
Frequency Response	20 Hz – 20 kHz, +1, -3 dB
Dynamic Range	92 dB @ stereo out
Hum & Noise *1(stereo out)	-74 dB, one input fader and stereo fader @ nominal. -80 dB, stereo off.
Maximum Voltage Gain	36 dB, channel in to stereo out. 30 dB, channel in to effect send

Digital Section

A/D, D/A Conversion	16 - bit linear
Sampling Frequency	44.1 kHz
Internal Program Memory	1 – 96

Channel Input Controls

Gain +4 – -20 dB (-10 dB center detent, rear panel)	
Phase	Normal/Reverse
2 - band EQ	EQ ON/OFF
Frequency	LOW: 32 Hz – 18 kHz, 56 steps HIGH: 32 Hz – 18 kHz, 56 steps
Gain	LOW/HIGH: ±15 dB, 1 dB steps
Q	LOW/HIGH: 0.1 – 5.0, 0.1 increments
Type	LOW/HIGH: Peaking/Shelving/Dynamic
Channel ON/OFF	ON/OFF
Fader Functions	Channel/SEND 1/SEND 2
Pre/Post	SEND 1/SEND 2
Pan	17 positions
Oscillator	Sin1: F= 50Hz – 10kHz, 8 steps Sin2: F= 262Hz – 523Hz, 8 steps Saw: F= 262Hz – 523Hz, 8 steps Pink (pink noise)

Effect Return Controls

Return ON/OFF	Return 1 ON/OFF, Return 2 ON/OFF
Return Fader	Return 1/Return 2
Effects	
SEND 1	1. REV 1 HALL 2. REV 2 ROOM 3. REV 3 VOCAL 4. REV 4 PLATE 5. FLANGE A 6. FLANGE B 7. CHORUS A 8. CHORUS B 9. PHASING 10. TREMOLO 11. SYMPHONIC 12. EARLY REF. 1 13. EARLY REF. 2 14. GATE REVERB 15. REVERSE GATE 16. DELAY L&R 17. STEREO ECHO 18. PITCH CHANGE A 19. PITCH CHANGE B 20. PITCH CHANGE C
SEND 2	1. STEREO ECHO 2. FLANGE 3. CHORUS 4. PHASING 5. PANPOT

Stereo Master Controls

Stereo ON/OFF	ON/OFF
Stereo Fader	

Functions

FOOT VOLUME, CHANNEL COPY, SOLO, FADE TIME, DATA ENTRY & FOOT VOLUME EXCHANGE, CASCADE LEVEL ADJUST, INPUT PATCHING, EFFECT 1 INPUT SELECT, CASCADE MODE, EFFECTS SEND, SYSTEM MODE

Displays

CLIP Indicators (ch 1 – 8)	ON @ 3 dB below clipping (pre A/D)
LED Meters	stereo level, 7 - segment x 2 (post D/A)
Memory Number	2 - digit 7 - segment LED
Parameter Display	16 - character x 2 - line LCD, backlit

Digital Cascade

INPUT (8 - pin DIN)
OUTPUT (8 - pin DIN)

MIDI

IN/OUT/THRU (5 - pin DIN x 3)

Power Requirements

U.S. & Canadian Models	120V AC, 60Hz
General Model	110 – 120/220 – 240V AC, 50/60Hz

Power Consumption

U.S. & Canadian Models	60W
General Model	60W

Dimensions (W x H x D) 480 x 186.8 x 286.5 mm (18 - 7/8" x 7 - 3/8" x 11 - 1/4")

Weight 8 kg (17.6 lbs.)

**1 Hum & Noise are measured with a -6dB/octave filter at 12.7 kHz.*

- *0dB= 0.775 Vr.m.s.*
- *Specifications and appearance subject to change without notice.*

● INPUT/OUTPUT SPECIFICATIONS

• Input specifications

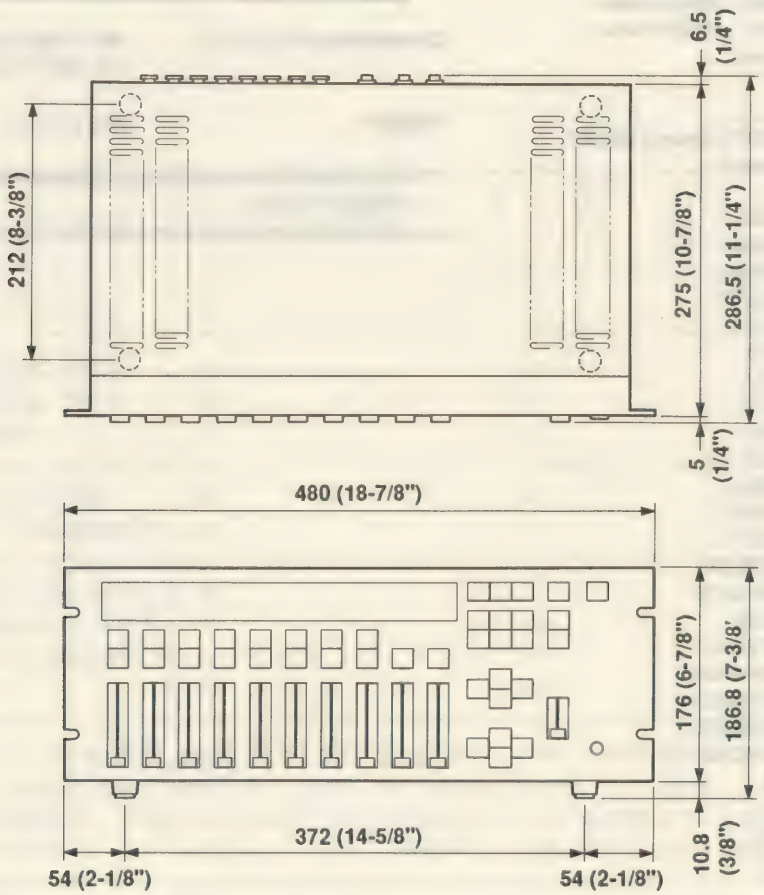
Input Terminal	GAIN	Actual Load Impedance	For Use With Nominal	Sensitivity	Input Level (@ 1kHz)		Connector In Console
					Nominal	Max Before Clip	
CH INPUT 1 — 8	-20	15 kΩ	600Ω Lines	-32dB (19.5mV)	-20dB (77.5mV)	-6dB (388mV)	Phone Jack (Unbalanced)
	-10			-22dB (61.5mV)	-10dB (245mV)	+4dB (1.23V)	
	+4			-8dB (309mV)	+4dB (1.23V)	+18dB (6.16V)	

• Output specifications

Output Terminal	Actual Source Impedance	For Use With Nominal	Output Level (@ 1kHz)		Connector In Console
			Nominal	Max Before Clip	
STEREO OUT (L, R)	150Ω	600Ω Lines	+4dB (1.23V)	+18dB (6.16V)	XLB-3-32 (Balanced)
		10kΩ Lines			Phone Jack (Unbalanced)
EFFECTS SEND	150Ω	10kΩ Lines	+4dB (1.23V)	+18dB (6.16V)	Phone Jack (Unbalanced)
PHONES	150Ω	8Ω Phones	0.5mW	12mW	Stereo Phone Jack (Unbalanced)
		40Ω Phones	1.7mW	42mW	

SECTION 5: DATA CHART

DIMENSIONS



Unit: mm (Inch)

EFFECT CHART

NOTE

PARAMETER
PRESET VALUE
RANGE

SEND 1 EFFECTS

No.	Program name	Parameter					
1	REV 1 HALL	RT	HI	ID	HPF	LPF	
		2.6s	x0.6	30.0ms	THRU	8.0kHz	
		0.3s – 99.0s	x0.1 – x1.0	0.1ms – 1000.0ms	THRU, 32Hz – 1000Hz	1.0kHz – 18.0kHz, THRU	
2	REV 2 ROOM	RT	HI	ID	HPF	LPF	
		1.5s	x0.7	20.0ms	THRU	8.0kHz	
		0.3s – 99.0s	x0.1 – x1.0	0.1ms – 1000.0ms	THRU, 32Hz – 1000Hz	1.0kHz – 18.0kHz, THRU	
3	REV 3 VOCAL	RT	HI	ID	HPF	LPF	
		2.4s	x0.5	45.0ms	80Hz	8.0kHz	
		0.3s – 99.0s	x0.1 – x1.0	0.1ms – 1000.0ms	THRU, 32Hz – 1000Hz	1.0kHz – 18.0kHz, THRU	
4	REV 4 PLATE	RT	HI	ID	HPF	LPF	
		1.8s	x0.7	10.0ms	40Hz	10.0kHz	
		0.3s – 99.0s	x0.1 – x1.0	0.1ms – 1000.0ms	THRU, 32Hz – 1000Hz	1.0kHz – 18.0kHz, THRU	
5	FLANGE A	MOD FREQ	MOD DPTH	MOD DLY	F B GAIN		
		2.5Hz	50%	1.2ms	35%		
		0.1Hz – 20.0Hz	0% – 100%	0.1ms – 100.0ms	0% – 99%		
6	FLANGE B	MOD FREQ	MOD DPTH	MOD DLY	F B GAIN		
		0.5Hz	90%	1.0ms	40%		
		0.1Hz – 20.0Hz	0% – 100%	0.1ms – 100.0ms	0% – 99%		
7	CHORUS A	MOD FREQ	DM	AM			
		0.2Hz	50%	40%			
		0.1Hz – 20.0Hz	0% – 100%	0% – 100%			
8	CHORUS B	MOD FREQ	DM	AM			
		0.6Hz	50%	10%			
		0.1Hz – 20.0Hz	0% – 100%	0% – 100%			
9	PHASING	MOD FREQ	MOD DPTH	MOD DLY			
		1.1Hz	100%	3.0ms			
		0.1Hz – 20.0Hz	0% – 100%	0.1ms – 5.8ms			
10	TREMOLO	MOD FREQ	MOD DPTH				
		6.0Hz	50%				
		0.1Hz – 20.0Hz	0% – 100%				
11	SYMPHONIC	MOD FREQ	MOD DPTH				
		0.7Hz	50%				
		0.1Hz – 20.0Hz	0% – 100%				
12	EARLY REF. 1	TYPE	SIZE	LV	DLY	LPF	
		HALL	2.0	5	10.0ms	13.0kHz	
		HALL, RANDOM, REVERSE, PLATE	0.1 – 20.0	0 – 10	0.1ms – 1000.0ms	1.0kHz – 18.0kHz, THRU	
13	EARLY REF. 2	TYPE	SIZE	LV	DLY	LPF	
		HALL	2.0	5	10.0ms	13.0kHz	
		HALL, RANDOM, REVERSE, PLATE	0.1 – 20.0	0 – 10	0.1ms – 1000.0ms	1.0kHz – 18.0kHz, THRU	
14	GATE REVERB	TYPE	SIZE	LV	DLY	LPF	
		RANDOM	2.0	5	20.0ms	6.3kHz	
		HALL, RANDOM, REVERSE, PLATE	0.1 – 20.0	0 – 10	0.1ms – 1000.0ms	1.0kHz – 18.0kHz, THRU	
15	REVERSE GATE	TYPE	SIZE	LV	DLY	LPF	
		REVERSE	3.3	5	25.0ms	13.0kHz	
		HALL, RANDOM, REVERSE, PLATE	0.1 – 20.0	0 – 10	0.1ms – 1000.0ms	1.0kHz – 18.0kHz, THRU	
16	DELAY L&R	LD	LFG	RD	RFG	HIGH	
		100.0ms	0%	200.0ms	0%	x1.0	
		0.1ms – 1400.0ms	0% – 99%	0.1ms – 1400.0ms	0% – 99%	x0.1 – x1.0	
17	STEREO ECHO	LD	LFG	RD	RFG	HIGH	
		170.0ms	60%	175.0ms	58%	x0.9	
		0.1ms – 700.0ms	0% – 99%	0.1ms – 700.0ms	0% – 99%	x0.1 – x1.0	

No.	Program name	Parameter					
18	PITCH CHANGE A	PITCH	FINE	DELAY	FG	KEY	
		+0	+0	0.1ms	0%	C3	
		-12 – +12	-100 – +100	0.1ms – 400.0ms	0% – 99%	OFF, C1 – C6	
19	PITCH CHANGE B	P1	F1	Dly 1	P2	F2	Dly 2
		+0	+8	0.1ms	+0	-8	2.0ms
		-12 – +12	-100 – +100	0.1ms – 200.0ms	-12 – +12	-100 – +100	0.1ms – 200.0ms
20	PITCH CHANGE C	PL	FL	Dly L	PR	FR	Dly R
		+0	+8	0.1ms	+0	-8	0.1ms
		-12 – +12	-100 – +100	0.1ms – 200.0ms	-12 – +12	-100 – +100	0.1ms – 200.0ms

● SEND 2 EFFECTS

No.	Program Name	Parameter				
1	STEREO ECHO	LD	LFG	RD	RFG	HIGH
		170.0ms	60%	175.0ms	58%	x0.9
		0.1ms – 175.0ms	0% – 99%	0.1ms – 175.0ms	0% – 99%	x0.1 – x1.0
2	FLANGE	MOD FREQ	MOD DPTH	MOD DLY	F B GAIN	
		2.5Hz	50%	1.2ms	35%	
		0.1Hz – 20.0Hz	0% – 100%	0.1ms – 100.0ms	0% – 99%	
3	CHORUS	MOD FREQ	DM	AM		
		1.2Hz	50%	40%		
		0.1Hz – 20.0Hz	0% – 100%	0% – 100%		
4	PHASING	MOD FREQ	MOD DPTH	MOD DLY		
		1.2Hz	100%	3.0ms		
		0.1Hz – 20.0Hz	0% – 100%	0.1ms – 5.8ms		
5	PANPOT	MOD FREQ	MOD DPTH			
		4.0Hz	50%			
		0.1Hz – 20.0Hz	0% – 100%			

INITIAL DATA CHART

MIXING PROGRAM

Parameter		CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
PHASE		NORMAL	→	→	→	→	→	→	→
LOW EQ	FREQ.	100Hz	→	→	→	→	→	→	→
	GAIN	+0dB	→	→	→	→	→	→	→
	Q	0.7	→	→	→	→	→	→	→
	P/S	PEAK	→	→	→	→	→	→	→
HI EQ	FREQ.	10.0kHz	→	→	→	→	→	→	→
	GAIN	+0dB	→	→	→	→	→	→	→
	Q	0.7	→	→	→	→	→	→	→
	P/S	PEAK	→	→	→	→	→	→	→
EQ ON/OFF		ON	→	→	→	→	→	→	→
CH ON/OFF		ON	→	→	→	→	→	→	→
CH LEVEL		NOMINAL	→	→	→	→	→	→	→
PAN		CENTER	→	→	→	→	→	→	→
CH EFFECT SEND 1	PRE/POST	POST	→	→	→	→	→	→	→
	LEVEL	∞	→	→	→	→	→	→	→
CH EFFECT SEND 2	PRE/POST	POST	→	→	→	→	→	→	→
	LEVEL	∞	→	→	→	→	→	→	→
OSC	ON/OFF	off	→	→	→	→	→	→	→
	W	Sin2	→	→	→	→	→	→	→
	F	262Hz	294Hz	330Hz	349Hz	392Hz	440Hz	494Hz	523Hz

Parameter	SEND 1 (RETURN 1)	SEND 2 (RETURN 2)
EFFECT SELECT	1 REV 1 HALL	1 STEREO ECHO
EFFECT PARAMETER SETTING	RT = 2.6s	LD = 170.0ms
	HI = x0.6s	LFG = 60%
	ID = 30.0ms	RD = 175.0ms
	HPF = THRU	RFG = 58%
	LPF = 8.0kHz	HIGH = x0.9
EFFECT RETURN LEVEL	∞	∞
EFFECT RETURN BALANCE	CENTER	CENTER
EFFECT RETURN ON/OFF	ON	ON

Parameter		
STEREO LEVEL		NOMINAL
STEREO ON/OFF		ON
DATA ENTRY & FOOT VOLUME EXCHANGE		Normal Mode
FADE TIME		T = 0.1sec
CH INPUT PATCH		ch 1 ← JK1 ch 2 ← JK2 ch 3 ← JK3 ch 4 ← JK4 ch 5 ← JK5 ch 6 ← JK6 ch 7 ← JK7 ch 8 ← JK8
CASCADE IN LEVEL	MASTER/SLAVE	Slave
	PAD	0.0dB
EFFECT 1 INPUT SELECT		Send 1
EXTERNAL SEND OUTPUT SELECT		Send 2

CONTROL NUMBER & PARAMETER (BASE CHANNEL)

CNTL 0	FadeTime	CNTL 43	S1fader4	CNTL 86	Ef1prm3R
CNTL 1	R1 fader	CNTL 44	S1fader5	CNTL 87	Ef1prm3V
CNTL 2	********	CNTL 45	S1fader6	CNTL 88	Ef1prm4R
CNTL 3	********	CNTL 46	S1fader7	CNTL 89	Ef1prm4V
CNTL 4	ST fader	CNTL 47	S1fader8	CNTL 90	Ef1prm5R
CNTL 5	********	CNTL 48	********	CNTL 91	Ef1prm5V
CNTL 6	Foot Vol	CNTL 49	********	CNTL 92	Ef1prm1R
CNTL 7	R2 fader	CNTL 50	********	CNTL 93	Ef1prm1V
CNTL 8	C1on/off	CNTL 51	********	CNTL 94	********
CNTL 9	C2on/off	CNTL 52	********	CNTL 95	********
CNTL 10	C3on/off	CNTL 53	********	CNTL 96	********
CNTL 11	C4on/off	CNTL 54	********	CNTL 97	********
CNTL 12	C5on/off	CNTL 55	********	CNTL 98	********
CNTL 13	C6on/off	CNTL 56	S2fader1	CNTL 99	********
CNTL 14	C7on/off	CNTL 57	S2fader2	CNTL 100	********
CNTL 15	C8on/off	CNTL 58	S2fader3	CNTL 101	********
CNTL 16	Phase1-4	CNTL 59	S2fader4	CNTL 102	Ef2prm1R
CNTL 17	Phase5-8	CNTL 60	S2fader5	CNTL 103	Ef2prm1V
CNTL 18	Pr/Pst1L	CNTL 61	S2fader6	CNTL 104	Ef2prm2R
CNTL 19	Pr/Pst1H	CNTL 62	S2fader7	CNTL 105	Ef2prm2V
CNTL 20	********	CNTL 63	S2fader8	CNTL 106	Ef2prm3R
CNTL 21	********	CNTL 64	********	CNTL 107	Ef2prm3V
CNTL 22	Pr/Pst2L	CNTL 65	********	CNTL 108	Ef2prm4R
CNTL 23	Pr/Pst2H	CNTL 66	********	CNTL 109	Ef2prm4V
CNTL 24	Panpot 1	CNTL 67	********	CNTL 110	Ef2prm5R
CNTL 25	Panpot 2	CNTL 68	********	CNTL 111	Ef2prm5V
CNTL 26	Panpot 3	CNTL 69	********	CNTL 112	********
CNTL 27	Panpot 4	CNTL 70	********	CNTL 113	********
CNTL 28	Panpot 5	CNTL 71	********	CNTL 114	********
CNTL 29	Panpot 6	CNTL 72	STon/off	CNTL 115	********
CNTL 30	Panpot 7	CNTL 73	R1on/off	CNTL 116	********
CNTL 31	Panpot 8	CNTL 74	********	CNTL 117	********
CNTL 32	I.fader1	CNTL 75	R2on/off	CNTL 118	********
CNTL 33	I.fader2	CNTL 76	Rt.Bal 1	CNTL 119	********
CNTL 34	I.fader3	CNTL 77	Rt.Bal 2	CNTL 120	********
CNTL 35	I.fader4	CNTL 78	Solo	CNTL 121	********
CNTL 36	I.fader5	CNTL 79	Eff1 typ	CNTL 122	********
CNTL 37	I.fader6	CNTL 80	********	CNTL 123	********
CNTL 38	I.fader7	CNTL 81	Eff2 typ	CNTL 124	********
CNTL 39	I.fader8	CNTL 82	Ef1prm1R	CNTL 125	********
CNTL 40	S1fader1	CNTL 83	Ef1prm1V	CNTL 126	********
CNTL 41	S1fader2	CNTL 84	Ef1prm2R	CNTL 127	********
CNTL 42	S1fader3	CNTL 85	Ef1prm2V		

******** : not assigned

CONTROL NUMBER & PARAMETER (NEXT CHANNEL)

CNTL 0	Dyna L 1	CNTL 43	********	CNTL 86	Hi gain7
CNTL 1	Dyna L 2	CNTL 44	********	CNTL 87	Hi gain8
CNTL 2	Dyna L 3	CNTL 45	********	CNTL 88	Hi Q 1
CNTL 3	Dyna L 4	CNTL 46	********	CNTL 89	Hi Q 2
CNTL 4	Dyna L 5	CNTL 47	********	CNTL 90	Hi Q 3
CNTL 5	Dyna L 6	CNTL 48	********	CNTL 91	Hi Q 4
CNTL 6	Dyna L 7	CNTL 49	********	CNTL 92	Hi Q 5
CNTL 7	Dyna L 8	CNTL 50	********	CNTL 93	Hi Q 6
CNTL 8	Dyna H 1	CNTL 51	********	CNTL 94	Hi Q 7
CNTL 9	Dyna H 2	CNTL 52	********	CNTL 95	Hi Q 8
CNTL 10	Dyna H 3	CNTL 53	********	CNTL 96	********
CNTL 11	Dyna H 4	CNTL 54	********	CNTL 97	********
CNTL 12	Dyna H 5	CNTL 55	********	CNTL 98	********
CNTL 13	Dyna H 6	CNTL 56	********	CNTL 99	********
CNTL 14	Dyna H 7	CNTL 57	********	CNTL 100	********
CNTL 15	Dyna H 8	CNTL 58	********	CNTL 101	********
CNTL 16	Lo frq 1	CNTL 59	********	CNTL 102	Lo typeL
CNTL 17	Lo frq 2	CNTL 60	********	CNTL 103	Lo typeH
CNTL 18	Lo frq 3	CNTL 61	********	CNTL 104	Hi typeL
CNTL 19	Lo frq 4	CNTL 62	********	CNTL 105	Hi typeH
CNTL 20	Lo frq 5	CNTL 63	********	CNTL 106	EQ1on/of
CNTL 21	Lo frq 6	CNTL 64	********	CNTL 107	EQ2on/of
CNTL 22	Lo frq 7	CNTL 65	********	CNTL 108	EQ3on/of
CNTL 23	Lo frq 8	CNTL 66	********	CNTL 109	EQ4on/of
CNTL 24	Lo gain1	CNTL 67	********	CNTL 110	EQ5on/of
CNTL 25	Lo gain2	CNTL 68	********	CNTL 111	EQ6on/of
CNTL 26	Lo gain3	CNTL 69	********	CNTL 112	EQ7on/of
CNTL 27	Lo gain4	CNTL 70	********	CNTL 113	EQ8on/of
CNTL 28	Lo gain5	CNTL 71	********	CNTL 114	Cascade
CNTL 29	Lo gain6	CNTL 72	Hi frq 1	CNTL 115	********
CNTL 30	Lo gain7	CNTL 73	Hi frq 2	CNTL 116	********
CNTL 31	Lo gain8	CNTL 74	Hi frq 3	CNTL 117	********
CNTL 32	Lo Q 1	CNTL 75	Hi frq 4	CNTL 118	********
CNTL 33	Lo Q 2	CNTL 76	Hi frq 5	CNTL 119	********
CNTL 34	Lo Q 3	CNTL 77	Hi frq 6	CNTL 120	********
CNTL 35	Lo Q 4	CNTL 78	Hi frq 7	CNTL 121	********
CNTL 36	Lo Q 5	CNTL 79	Hi frq 8	CNTL 122	********
CNTL 37	Lo Q 6	CNTL 80	Hi gain1	CNTL 123	********
CNTL 38	Lo Q 7	CNTL 81	Hi gain2	CNTL 124	********
CNTL 39	Lo Q 8	CNTL 82	Hi gain3	CNTL 125	********
CNTL 40	********	CNTL 83	Hi gain4	CNTL 126	********
CNTL 41	********	CNTL 84	Hi gain5	CNTL 127	********
CNTL 42	********	CNTL 85	Hi gain6		

******** : not assigned

BLANK CHART

YAMAHA DMP11 MIXING PROGRAM

MEMORY NO. PROGRAM TITLE:

DATE: PROGRAMMER:

Parameter		CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
PHASE									
LOW EQ	FREQ.								
	GAIN								
	Q								
	P/S								
HI EQ	FREQ.								
	GAIN								
	Q								
	P/S								
EQ ON/OFF									
CH ON/OFF									
CH LEVEL									
PAN									
CH EFFECT SEND 1	PRE/POST								
	LEVEL								
CH EFFECT SEND 2	PRE/POST								
	LEVEL								
OSC	ON/OFF								
	W								
	F								

Parameter	SEND 1 (RETURN 1)	SEND 2 (RETURN 2)
EFFECT SELECT		
EFFECT PARAMETER SETTING		
EFFECT RETURN LEVEL		
EFFECT RETURN BALANCE		
EFFECT RETURN ON/OFF		

Parameter		
STEREO LEVEL		
STEREO ON/OFF		
DATA ENTRY & FOOT VOLUME EXCHANGE		
FADE TIME		T =
CH INPUT PATCH		ch 1 ← ch 2 ← ch 3 ← ch 4 ← ch 5 ← ch 6 ← ch 7 ← ch 8 ←
CASCADE IN LEVEL	MASTER/SLAVE	
	PAD	
EFFECT 1 INPUT SELECT		
EXTERNAL SEND OUTPUT SELECT		

YAMAHA DMP11 PROGRAM NAME

DATE: PROGRAMMER:

Memory No.	Program Name	Memory No.	Program Name	Memory No.	Program Name
1		34		67	
2		35		68	
3		36		69	
4		37		70	
5		38		71	
6		39		72	
7		40		73	
8		41		74	
9		42		75	
10		43		76	
11		44		77	
12		45		78	
13		46		79	
14		47		80	
15		48		81	
16		49		82	
17		50		83	
18		51		84	
19		52		85	
20		53		86	
21		54		87	
22		55		88	
23		56		89	
24		57		90	
25		58		91	
26		59		92	
27		60		93	
28		61		94	
29		62		95	
30		63		96	
31		64			
32		65			
33		66			

YAMAHA DMP11

PROGRAM CHANGE NUMBER & MEMORY NUMBER

BANK: _____ MIDI CHANNEL: _____

DATE: _____ PROGRAMMER: _____

PGM 1	MEM	PGM 44	MEM	PGM 87	MEM
PGM 2	MEM	PGM 45	MEM	PGM 88	MEM
PGM 3	MEM	PGM 46	MEM	PGM 89	MEM
PGM 4	MEM	PGM 47	MEM	PGM 90	MEM
PGM 5	MEM	PGM 48	MEM	PGM 91	MEM
PGM 6	MEM	PGM 49	MEM	PGM 92	MEM
PGM 7	MEM	PGM 50	MEM	PGM 93	MEM
PGM 8	MEM	PGM 51	MEM	PGM 94	MEM
PGM 9	MEM	PGM 52	MEM	PGM 95	MEM
PGM 10	MEM	PGM 53	MEM	PGM 96	MEM
PGM 11	MEM	PGM 54	MEM	PGM 97	MEM
PGM 12	MEM	PGM 55	MEM	PGM 98	MEM
PGM 13	MEM	PGM 56	MEM	PGM 99	MEM
PGM 14	MEM	PGM 57	MEM	PGM 100	MEM
PGM 15	MEM	PGM 58	MEM	PGM 101	MEM
PGM 16	MEM	PGM 59	MEM	PGM 102	MEM
PGM 17	MEM	PGM 60	MEM	PGM 103	MEM
PGM 18	MEM	PGM 61	MEM	PGM 104	MEM
PGM 19	MEM	PGM 62	MEM	PGM 105	MEM
PGM 20	MEM	PGM 63	MEM	PGM 106	MEM
PGM 21	MEM	PGM 64	MEM	PGM 107	MEM
PGM 22	MEM	PGM 65	MEM	PGM 108	MEM
PGM 23	MEM	PGM 66	MEM	PGM 109	MEM
PGM 24	MEM	PGM 67	MEM	PGM 110	MEM
PGM 25	MEM	PGM 68	MEM	PGM 111	MEM
PGM 26	MEM	PGM 69	MEM	PGM 112	MEM
PGM 27	MEM	PGM 70	MEM	PGM 113	MEM
PGM 28	MEM	PGM 71	MEM	PGM 114	MEM
PGM 29	MEM	PGM 72	MEM	PGM 115	MEM
PGM 30	MEM	PGM 73	MEM	PGM 116	MEM
PGM 31	MEM	PGM 74	MEM	PGM 117	MEM
PGM 32	MEM	PGM 75	MEM	PGM 118	MEM
PGM 33	MEM	PGM 76	MEM	PGM 119	MEM
PGM 34	MEM	PGM 77	MEM	PGM 120	MEM
PGM 35	MEM	PGM 78	MEM	PGM 121	MEM
PGM 36	MEM	PGM 79	MEM	PGM 122	MEM
PGM 37	MEM	PGM 80	MEM	PGM 123	MEM
PGM 38	MEM	PGM 81	MEM	PGM 124	MEM
PGM 39	MEM	PGM 82	MEM	PGM 125	MEM
PGM 40	MEM	PGM 83	MEM	PGM 126	MEM
PGM 41	MEM	PGM 84	MEM	PGM 127	MEM
PGM 42	MEM	PGM 85	MEM	PGM 128	MEM
PGM 43	MEM	PGM 86	MEM		

YAMAHA DMP11

CONTROL NUMBER & PARAMETER (BASE CHANNEL)

MIDI CHANNEL:

DATE: PROGRAMMER:

CNTL 0		CNTL 43		CNTL 86	
CNTL 1		CNTL 44		CNTL 87	
CNTL 2		CNTL 45		CNTL 88	
CNTL 3		CNTL 46		CNTL 89	
CNTL 4		CNTL 47		CNTL 90	
CNTL 5		CNTL 48		CNTL 91	
CNTL 6		CNTL 49		CNTL 92	
CNTL 7		CNTL 50		CNTL 93	
CNTL 8		CNTL 51		CNTL 94	
CNTL 9		CNTL 52		CNTL 95	
CNTL 10		CNTL 53		CNTL 96	
CNTL 11		CNTL 54		CNTL 97	
CNTL 12		CNTL 55		CNTL 98	
CNTL 13		CNTL 56		CNTL 99	
CNTL 14		CNTL 57		CNTL 100	
CNTL 15		CNTL 58		CNTL 101	
CNTL 16		CNTL 59		CNTL 102	
CNTL 17		CNTL 60		CNTL 103	
CNTL 18		CNTL 61		CNTL 104	
CNTL 19		CNTL 62		CNTL 105	
CNTL 20		CNTL 63		CNTL 106	
CNTL 21		CNTL 64		CNTL 107	
CNTL 22		CNTL 65		CNTL 108	
CNTL 23		CNTL 66		CNTL 109	
CNTL 24		CNTL 67		CNTL 110	
CNTL 25		CNTL 68		CNTL 111	
CNTL 26		CNTL 69		CNTL 112	
CNTL 27		CNTL 70		CNTL 113	
CNTL 28		CNTL 71		CNTL 114	
CNTL 29		CNTL 72		CNTL 115	
CNTL 30		CNTL 73		CNTL 116	
CNTL 31		CNTL 74		CNTL 117	
CNTL 32		CNTL 75		CNTL 118	
CNTL 33		CNTL 76		CNTL 119	
CNTL 34		CNTL 77		CNTL 120	
CNTL 35		CNTL 78		CNTL 121	
CNTL 36		CNTL 79		CNTL 122	
CNTL 37		CNTL 80		CNTL 123	
CNTL 38		CNTL 81		CNTL 124	
CNTL 39		CNTL 82		CNTL 125	
CNTL 40		CNTL 83		CNTL 126	
CNTL 41		CNTL 84		CNTL 127	
CNTL 42		CNTL 85			

YAMAHA DMP11

CONTROL NUMBER & PARAMETER (NEXT CHANNEL)

MIDI CHANNEL:

DATE: PROGRAMMER:

CNTL 0		CNTL 43		CNTL 86	
CNTL 1		CNTL 44		CNTL 87	
CNTL 2		CNTL 45		CNTL 88	
CNTL 3		CNTL 46		CNTL 89	
CNTL 4		CNTL 47		CNTL 90	
CNTL 5		CNTL 48		CNTL 91	
CNTL 6		CNTL 49		CNTL 92	
CNTL 7		CNTL 50		CNTL 93	
CNTL 8		CNTL 51		CNTL 94	
CNTL 9		CNTL 52		CNTL 95	
CNTL 10		CNTL 53		CNTL 96	
CNTL 11		CNTL 54		CNTL 97	
CNTL 12		CNTL 55		CNTL 98	
CNTL 13		CNTL 56		CNTL 99	
CNTL 14		CNTL 57		CNTL 100	
CNTL 15		CNTL 58		CNTL 101	
CNTL 16		CNTL 59		CNTL 102	
CNTL 17		CNTL 60		CNTL 103	
CNTL 18		CNTL 61		CNTL 104	
CNTL 19		CNTL 62		CNTL 105	
CNTL 20		CNTL 63		CNTL 106	
CNTL 21		CNTL 64		CNTL 107	
CNTL 22		CNTL 65		CNTL 108	
CNTL 23		CNTL 66		CNTL 109	
CNTL 24		CNTL 67		CNTL 110	
CNTL 25		CNTL 68		CNTL 111	
CNTL 26		CNTL 69		CNTL 112	
CNTL 27		CNTL 70		CNTL 113	
CNTL 28		CNTL 71		CNTL 114	
CNTL 29		CNTL 72		CNTL 115	
CNTL 30		CNTL 73		CNTL 116	
CNTL 31		CNTL 74		CNTL 117	
CNTL 32		CNTL 75		CNTL 118	
CNTL 33		CNTL 76		CNTL 119	
CNTL 34		CNTL 77		CNTL 120	
CNTL 35		CNTL 78		CNTL 121	
CNTL 36		CNTL 79		CNTL 122	
CNTL 37		CNTL 80		CNTL 123	
CNTL 38		CNTL 81		CNTL 124	
CNTL 39		CNTL 82		CNTL 125	
CNTL 40		CNTL 83		CNTL 126	
CNTL 41		CNTL 84		CNTL 127	
CNTL 42		CNTL 85			

SERVICE

This product is supported by Yamaha's worldwide network of factory trained and qualified dealer service personnel.
In the event of a problem, contact your nearest Yamaha dealer.

YAMAHA DMP11

CONTROL NUMBER & PARAMETER (NEXT CHANNEL)

MIDI CHANNEL:

DATE: PROGRAMMER:

CNTL 0		CNTL 43		CNTL 86	
CNTL 1		CNTL 44		CNTL 87	
CNTL 2		CNTL 45		CNTL 88	
CNTL 3		CNTL 46		CNTL 89	
CNTL 4		CNTL 47		CNTL 90	
CNTL 5		CNTL 48		CNTL 91	
CNTL 6		CNTL 49		CNTL 92	
CNTL 7		CNTL 50		CNTL 93	
CNTL 8		CNTL 51		CNTL 94	
CNTL 9		CNTL 52		CNTL 95	
CNTL 10		CNTL 53		CNTL 96	
CNTL 11		CNTL 54		CNTL 97	
CNTL 12		CNTL 55		CNTL 98	
CNTL 13		CNTL 56		CNTL 99	
CNTL 14		CNTL 57		CNTL 100	
CNTL 15		CNTL 58		CNTL 101	
CNTL 16		CNTL 59		CNTL 102	
CNTL 17		CNTL 60		CNTL 103	
CNTL 18		CNTL 61		CNTL 104	
CNTL 19		CNTL 62		CNTL 105	
CNTL 20		CNTL 63		CNTL 106	
CNTL 21		CNTL 64		CNTL 107	
CNTL 22		CNTL 65		CNTL 108	
CNTL 23		CNTL 66		CNTL 109	
CNTL 24		CNTL 67		CNTL 110	
CNTL 25		CNTL 68		CNTL 111	
CNTL 26		CNTL 69		CNTL 112	
CNTL 27		CNTL 70		CNTL 113	
CNTL 28		CNTL 71		CNTL 114	
CNTL 29		CNTL 72		CNTL 115	
CNTL 30		CNTL 73		CNTL 116	
CNTL 31		CNTL 74		CNTL 117	
CNTL 32		CNTL 75		CNTL 118	
CNTL 33		CNTL 76		CNTL 119	
CNTL 34		CNTL 77		CNTL 120	
CNTL 35		CNTL 78		CNTL 121	
CNTL 36		CNTL 79		CNTL 122	
CNTL 37		CNTL 80		CNTL 123	
CNTL 38		CNTL 81		CNTL 124	
CNTL 39		CNTL 82		CNTL 125	
CNTL 40		CNTL 83		CNTL 126	
CNTL 41		CNTL 84		CNTL 127	
CNTL 42		CNTL 85			

YAMAHA

VF19950

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